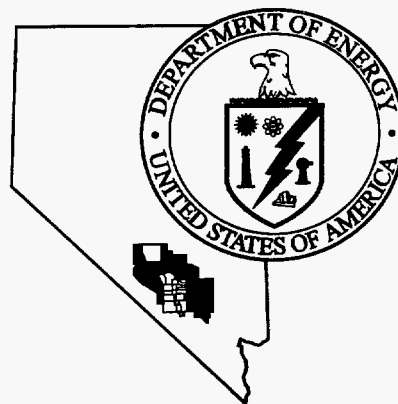


Nevada
Environmental
Restoration
Project



Closure Report for
Corrective Action Unit 486:
Double Tracks RADSAFE Area
Nellis Air Force Range, Nevada

UNCONTROLLED

Controlled Copy No. ___

Revision: 0

December 2000

Environmental Restoration
Division

U.S. Department of Energy
Nevada Operations Office

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**CLOSURE REPORT
FOR CORRECTIVE ACTION UNIT 486:
DOUBLE TRACKS RADS SAFE AREA,
NELLIS AIR FORCE RANGE, NEVADA**

Controlled Copy No.:

UNCONTROLLED

Revision 0

December 2000

**Prepared for the U.S. Department of Energy
Nevada Operations Office
under Contract No. DE-AC08-96NV11718**

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**CLOSURE REPORT FOR
CORRECTIVE ACTION UNIT 486:
DOUBLE TRACKS RADS SAFE AREA,
NELLIS AIR FORCE RANGE, NEVADA**

Approved by: Sabine T. Curtis
for Janet L. Appenzeller-Wing, Project Manager
Industrial Sites Project

Date: 12/21/00

Approved by: Janet Appenzeller-Wing
for Runore C. Wycoff, Division Director
Environmental Restoration Division

Date: 12/21/00

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ACRONYMS AND ABBREVIATIONS

bgs	below ground surface
BN	Bechtel Nevada
cm ²	Square centimeters
CADD	Corrective Action Decision Document
CAIP	Corrective Action Investigation Plan
CAP	Corrective Action Plan
CAS	Corrective Action Site
CAU	Corrective Action Unit
CR	Closure Report
dpm	Disintegrations per minute
DOE/NV	U.S. Department of Energy, Nevada Operations Office
DTRSA	Double Tracks Radiological Safety Area
EPA	U.S. Environmental Protection Agency
FIDLER	Field Instrument for the Detection of Low Energy Radiation
FFACO	Federal Facility Agreement and Consent Order
ft	feet
gal	gallon
HPGe	High Purity Germanium detector
L	liter
m	meter

ACRONYMS AND ABBREVIATIONS (continued)

m ³	cubic meter
NDEP	Nevada Division of Environmental Protection
NTS	Nevada Test Site
TTR	Tonopah Test Range
UXO	Unexploded Ordnance
yd ³	cubic yard

EXECUTIVE SUMMARY

The Double Tracks Radiological Safety Area (DTRSA), Corrective Action Unit (CAU) 486, was clean-closed following the approved Corrective Action Decision Document closure alternative and in accordance with the Federal Facility Agreement and Consent Order (FFACO, 1996). The CAU consists of a single Corrective Action Site, 71-23-001-71DT.

The DTRSA was used during May 1963 to decontaminate vehicles, equipment, personnel and animals from the Double Tracks Test. Double Tracks was one of four storage-transportation tests. The Double Tracks test was conducted in Stonewall Flat, approximately 32 kilometers (20 miles) east of Goldfield, Nevada, on the Nellis Air Force Range. The Double Tracks Test used a single device containing plutonium and depleted uranium and was designed to investigate the characteristics of plutonium-bearing particulate material formed by the non-nuclear detonation of a nuclear weapon.

All facilities associated with the DTRSA operation were removed. Based on available information, the areas of concern at the DTRSA consisted of a decon facility (vehicle decon pad and decon sump) in the southern half of the DTRSA, and a burial pit and former loading/unloading area located in the northern half of the DTRSA.

Based on the results of the Corrective Action Investigation, radiological field screening detected elevated gamma and alpha readings on excavated plastic debris. Swipe surveys taken on the plastic debris detected removable alpha. No contaminants were detected above preliminary action levels in soil samples. The debris excavated during the corrective action investigation was not characterized.

The clean-closure corrective action consisted of excavation, disposal, verification sampling, backfilling, and regrading. Field activities began on May 1, 2000, and ended on May 10, 2000. Soil that was associated with the radiologically contaminated man-made debris was placed into B-25 bins, moved to the designated waste management area where it was scanned, and hauled off-site for disposal. Verification soil samples were collected and analyzed to determine if clean closure had been achieved. Clean borrow soil was hauled to the site and used to backfill the excavation. The excavation was then regraded to promote drainage and minimize ponding of surface water. Since the site is clean-closed, post-closure care is not required.

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1.0 INTRODUCTION

This Closure Report (CR) describes the remediation activities performed at the Tonopah Test Range (TTR) Double Tracks Radiological Safety Area (DTRSA) which was used during May 1963 to decontaminate vehicles, equipment, personnel, and animals from the Double Tracks Test. The DTRSA is identified in the Federal Facility Agreement and Consent Order (FFACO) of 1966 as Corrective Action Unit (CAU) 486 (FFACO, 1996). Remediation of CAU 486 is required under the FFACO (FFACO, 1996). CAU 486 consists of the following Corrective Action Site (CAS) at the TTR (Figure 1):

- CAS 71-23-001: Double Tracks Radiological Safety Area

1.1 PURPOSE

The purpose of this CR is to provide documentation of the completed corrective action and to provide data confirming the corrective action. The corrective action was performed in accordance with the approved Corrective Action Plan (CAP) (U.S. Department of Energy [DOE/NV], 1999a) and consisted of clean closure by excavation and disposal.

A complete site history for the CAS is provided in the Corrective Action Investigation Plan (CAIP) U.S. Department of Energy, Nevada Operations Office (DOE/NV, 1998). Corrective action investigation activities were performed from November 16 through December 4, 1998, in two separate phases following the CAIP. Phase I was to locate the previous site features and dimensions using a backhoe. The areas investigated were the former Decontamination Facility, Burial Pit (Area 6) and the loading/unloading location (Area 2) (Figure 2). Phase II was the subsurface investigation consisting of soil sample collection from the three areas of the site. Of the three areas investigated, only the Burial Pit/Area 6, located in the northern half of the DTRSA contained waste. The material consisted of chicken wire, pieces of lumber, cloth, and plastic. A "contaminated material" sticker was observed on the plastic. Radiological field screening conducted on the man-made debris showed an elevated gamma count of 15,600 counts per minute using the Field Instrument for the Detection of Low Energy Radiation (FIDLER). Beta counts were below field screening levels. A swipe sample taken from the plastic detected removable alpha of 283 disintegrations per minute (dpm) per 100 square centimeters (cm²). Plutonium and uranium were not detected above minimum detectable activity levels in soil samples collected (DOE/NV, 1999b). The vicinity and area investigated are shown in Figure 2.

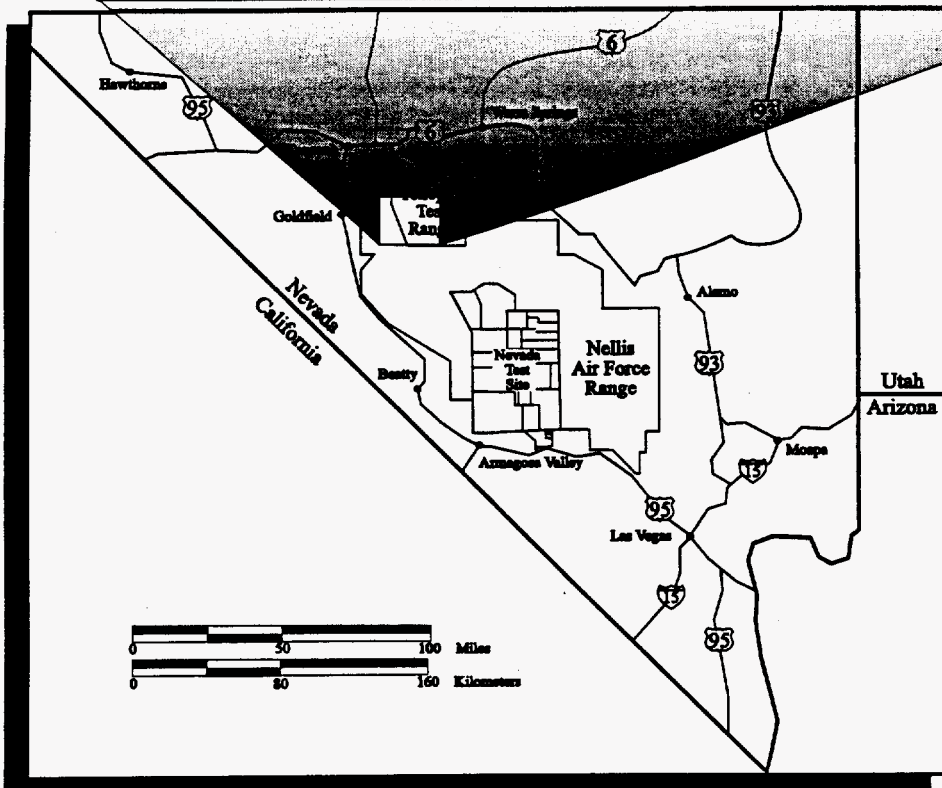
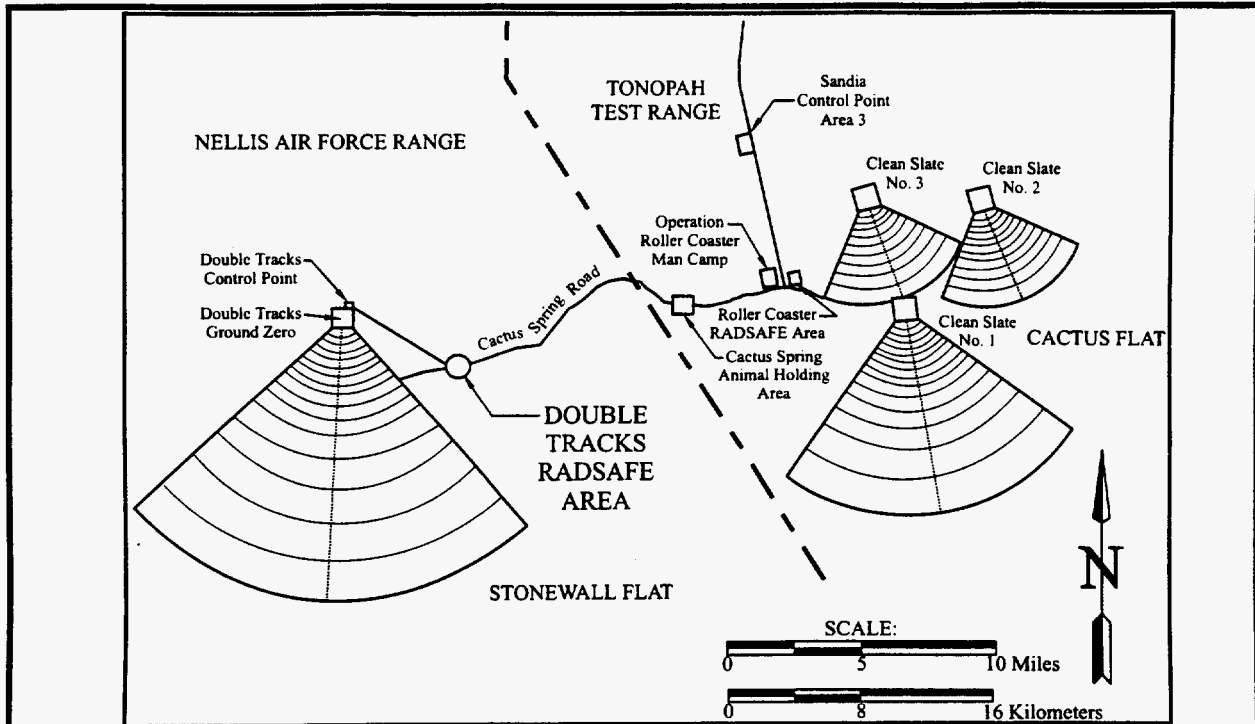


FIGURE 1
LOCATION MAP OF CAU 486 DOUBLE TRACKS
RADSAFE AREA

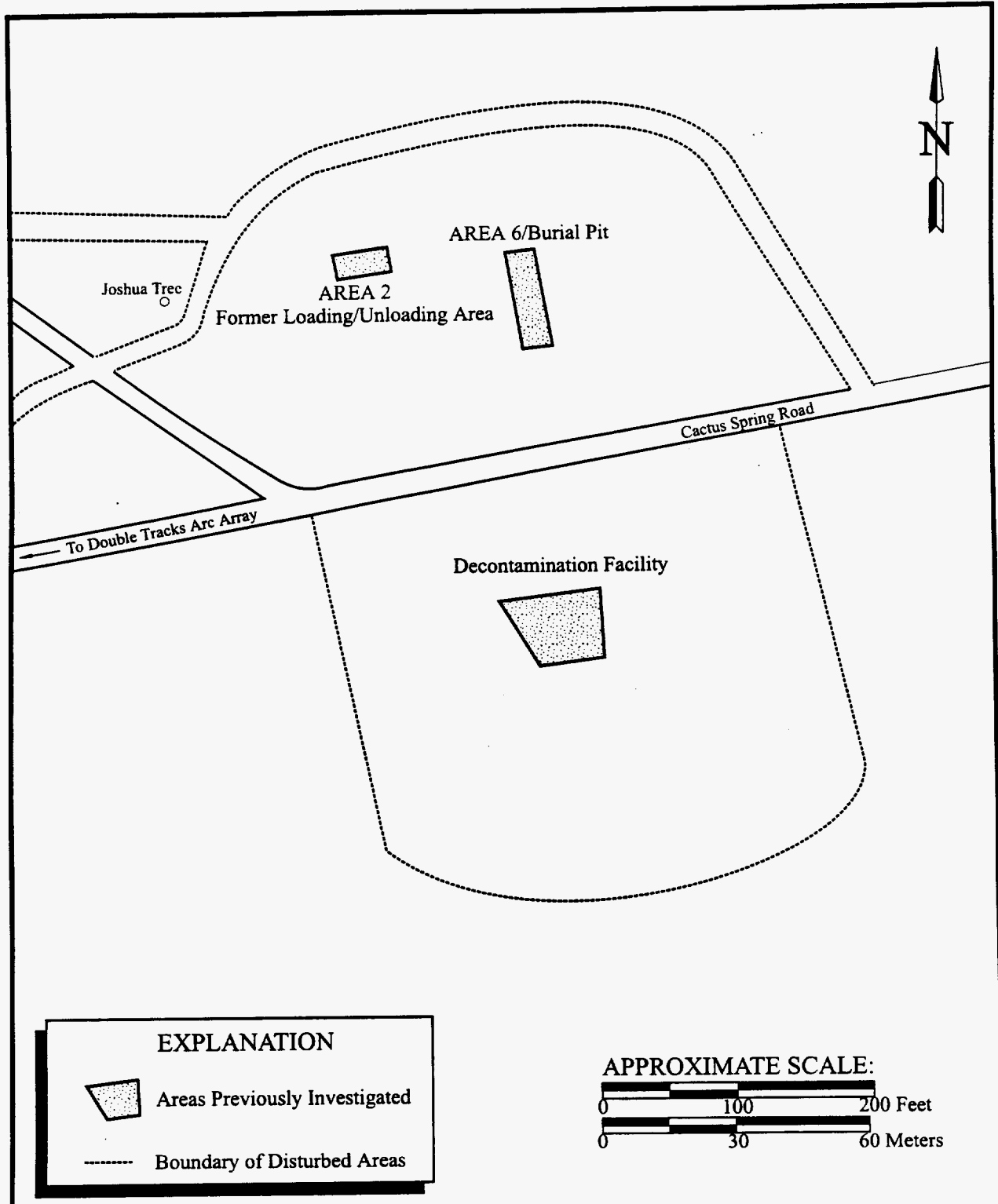


FIGURE 2
VICINITY MAP OF CAU 486
DOUBLE TRACKS RADSAFE AREA

1.2 SCOPE

The corrective action as implemented consisted of the following activities:

- Preplanning and site preparation, including preparation of plans and permits, delineation of excavation boundaries, and mobilization of equipment and personnel to the site.
- Excavating impacted material. The excavated material was staged in a designated waste management area at the DTRSA pending transfer to the Nevada Test Site (NTS).
- Inspecting the excavation visually, and collecting verification soil samples for laboratory analysis. Based on results of verification samples, additional excavation was not required.
- Backfilling.
- Regrading the excavation to promote drainage and minimize ponding of surface water.
- Cleaning up the site, including disposal of site surface debris left by previous investigations, and removal of fencing.

1.3 CLOSURE REPORT CONTENTS

This document is divided into the following sections in accordance with the approved FFACO CR standardized outline:

- Section 1.0 - Introduction (purpose, scope, contents).
- Section 2.0 - Closure Activities (description, deviations, schedule, site plan).
- Section 3.0 - Waste Disposition (wastes encountered and their appropriate disposal).
- Section 4.0 - Closure Verification Results (laboratory analysis).
- Section 5.0 - Summary and Recommendations.
- Section 6.0 - References.

Certain sections and appendices of this document have been modified from the approved FFACO outline. The following FFACO sections and appendices have not been included or revised as indicated below:

- Use Restriction - Not applicable. The site was clean-closed.
- Closure Certification - Not applicable.

- As-Built Documentation - Not applicable. No engineered structures were constructed.
- Modifications to the Post-Closure Plan - Not applicable. The site was clean-closed.

The appendices included in this document are provided as follows:

- Appendix A: Photographs of Closure Activity Work Areas.
- Appendix B: Waste Disposition Documentation.
- Appendix C: Verification Sample Analytical Reports.
- Appendix D: Field Notes.

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2.0 CLOSURE ACTIVITIES

This section of the CR details the specific corrective action activities implemented and completed during the closure of CAU 486. This section also provides a detailed schedule of site activities as completed. Photographs showing the work areas before, during, and after closure activities are included in Appendix A.

2.1 DESCRIPTION OF CORRECTIVE ACTION ACTIVITIES

2.1.1 Preplanning and Site Preparation

Planning documents prepared prior to beginning CAU 486 corrective action activities include the CAP (DOE, 1999a), Field Management Plan (Bechtel Nevada [BN], 2000a), Site Specific Health and Safety Plan (BN, 2000b), a construction work package, and an excavation permit. Above-ground and underground utilities were surveyed prior to starting work. No utilities were found as the site is a remote location of the Nellis Air Force Range. An unexploded ordnance (UXO) survey was conducted by U.S. Air Force Explosive Ordnance Disposal (EOD) specialists prior to starting work. UXO was not found at this location. In addition, a National Environmental Policy Act checklist was prepared and approved. Planned excavation boundaries were identified. A Readiness Review meeting was conducted on April 25, 2000. On April 26, 2000, the pre-job briefing was held and personnel and equipment began the mobilization to the site.

2.1.2 Excavation of the Area 6/Burial Pit

The Corrective Action Decision Document (CADD) (DOE/NV, 1999b) identified one location in the Area 6/Burial Pit where a "contaminated material" sticker was observed on a plastic bag. Radiological field screening conducted on the man-made debris showed an elevated gamma count of 15,600 counts per minute using the FIDLER. A swipe sample taken from the plastic detected removable alpha of 283 dpm per 100 cm². The recommended closure (DOE/NV, 1999b) includes clean closure for Area 6/Burial Pit by excavation and disposal. Since the extent of debris was not verified during the characterization efforts, the CAP (DOE/NV, 1999a) called for the excavation of three trenches within the burial pit to a minimum depth of 1.5 meters (m) (5.0 feet [ft]) below ground surface (bgs) using backhoe equipment. A central trench, approximately 23 m (75 ft) long, was to be excavated; and two additional trenches, approximately 9 m (30 ft) long, were to be excavated on either side of the central trench. Once debris was observed in a trench, the trench was to be extended laterally and vertically to delineate the extent of the debris to be removed.

On May 1, 2000, the mobilization and the Explosive Ordnance Disposal survey were completed. On May 02, 2000 the excavation of the Area 6/Burial Pit was begun. Using a backhoe, the first 0.6 m (2 ft) of soil was excavated and stockpiled as clean fill at the south end of the location.

At a depth of 0.76 m (2.5 ft), scrap metal and plastic debris was uncovered. No elevated radioactive readings were detected. A second stockpile was started, containing soil and man-made debris.

At 0.91 m (3.0 ft) bgs, wire, wood, and plastic was observed. No elevated radioactive readings were detected. The floor of the excavation at this point averaged 1.06 m (3.5 ft). A "pothole" was dug at the middle borehole, "NB3", as identified in the CADD (DOE/NV, 1999b). Total depth of the pothole was 2.0 m to 2.1 m (6.5 ft to 7.0 ft bgs). Pothole NB3 was obviously a debris-layer portion of the Burial Pit excavation, however there was only a slight elevation in radiological activity (± 200 dpm). The first B-25 bin was moved into the Exclusion Zone (EZ) and the first lift of soil and debris was placed into the bin. The Remote Sensing Laboratory personnel installed the High Purity Germanium (HPGe) detector over the bin and surveyed for radiological activity. No elevated radiological activity readings were detected. The second and third lifts were added to the bin with each lift checked with the HPGe detector. No elevated radiological activity readings were detected with any of the three instruments used on the project (Electra, FIDLER, and the HPGe). All debris at this point was trash, not hotline material as expected. The width of the "6NT1 trench", identified in the CADD (DOE/NV, 1999b) as the trench containing "radiologically contaminated debris" was extended 1.82 m (6.0 ft). One plastic bag was found with Radiological Control tape ("Contaminated Material") attached. The debris in the plastic bag consisted of tape, paper, food packaging, etc. No hotline waste was found. No elevated radiological activity readings were detected from this debris. The length and width of the excavation were extended and three more bags of trash were recovered with no elevated radiological activity readings.

One B-25 was set off to the side for any obviously radiological material or debris indicating elevated radiological activity. Also, in order to conserve the B-25 containers the decision was made to separate the majority of the clean soil from the other debris. Two B-25 boxes were staged, one being filled with obvious or indicating radiological debris, and the other filled with segmented material such as plastic, wire, wood, etc. As the excavation progressed, besides the abundant trash that was segmented and placed into the "trash" B-25, numerous plastic bags containing hotline trash and some loose debris with elevated radiological activity (300 to 4,000 counts/second [FIDLER]) was placed in the radiological material bin. As the bins were filled they were moved to the Contaminated Storage Area where they were surveyed, weighed, and placarded, pending transport to the NTS.

The completed excavation was visually inspected, all debris was removed, and no staining or discoloration was observed.

Verification soil samples collected in the former Area 6/Burial Pit area are numbered sequentially using the following nomenclature: CAU4860001, CAU4860002, etc. The samples were collected from the bottom of the Area 6/Burial Pit excavation. Details of soil sampling, handling, analyses, and results are discussed in Section 4.1.

On May 10, 2000 approximately 9 cubic meters (m³) (12 cubic yards [yd³]) of waste soil and compactable trash was transported off the TTR for disposal at the NTS. Waste disposition is discussed in Section 3.0.

2.1.3 Backfilling and Regrading of Excavations

The backfilling operation began on May 8, 2000. Due to the trash segmentation efforts, the source of backfill material (Area 3 Borrow Pit) identified as a pre-project requirement was no longer required. Stockpiled material at the site was sufficient to complete the backfill operation in order to level the area to the existing grade, restore drainage, and minimize ponding of surface water.

The stockpiled soil was subsequently placed in the excavation, and wheel compacted using the backhoe, forklift, or water truck, as needed. Final site regrading was completed on May 10, 2000.

2.1.4 Decontamination of Equipment

After the final load of radiologically contaminated debris was handled, equipment that had contacted the debris (backhoe bucket and shovel) was cleaned by first brushing off visible residue, then washing with a laboratory-grade detergent solution, and followed by a tap water rinse. Equipment decontamination was performed over a B-25 bin in order to contain rinsate in the excavated debris. Less than 4 liters [L] (1 gallon [gal]) of detergent solution and water rinse were used and was completely absorbed (no free liquid) into the waste debris.

Soil sampling scoops were decontaminated before field mobilization using a laboratory-grade detergent solution, an isopropanol rinse and deionized water rinses.

2.2 DEVIATIONS FROM THE CAP AS APPROVED

No significant deviations occurred from the approved scope of work as outlined in the CAP (DOE, 1999a). The following minor deviations occurred from the approved scope of work:

- Since the extent of debris was not verified during the characterization efforts, three trenches were to be excavated within the burial pit to a minimum depth of 1.5 m (5.0 ft) below ground surface using backhoe equipment. A central trench, approximately 23 m (75 ft) long, was to be excavated. Two additional trenches, approximately 9 m (30 ft) long, were to be excavated on either side of the central trench. Once debris was observed in a trench, the trench was to be extended laterally and vertically to delineate the extent of the debris to be removed. In actuality, one large excavation resulted from chasing debris, which would most likely correspond to the original Area 6/Burial Pit configuration.
- Verification soil samples were collected in fewer locations than planned. It was estimated that a total of fourteen samples would be collected including one duplicate and one equipment blank. The number of samples collected was contingent on the volume of debris encountered in the three trenches. Since one large excavation resulted from the debris removal operation, seven samples were sufficient to adequately represent the floor of the excavation. A duplicate sample and an equipment blank were also collected. Sampling locations were documented in the field and reported in the Technical Lead's log book.
- The actual volume of generated waste varied from the planned volume. A smaller volume of waste soil and compactable hotline trash was disposed (9 m^3 [12 yd^3]) than planned (22.9 m^3 [30 yd^3]) because of the efforts to segment this material from the otherwise clean soil.

2.3 CORRECTIVE ACTION SCHEDULE AS COMPLETED

The corrective action field activities began on May 1, 2000, and were completed on May 10, 2000. A corrective action schedule as completed is provided in Table 1.

2.4 SITE PLAN/SURVEY PLAT

Survey data were not required for this closure. Because engineered construction was not required as part of this closure, as-built drawings are not included in this Closure Report. Figure 3 shows the location of the verification samples collected and the condition of the site following closure activities.

**TABLE 1
 CAU 486 CORRECTIVE ACTION SCHEDULE AS COMPLETED**

Activity ID	Activity Description	Cal ID	Actual Start	Actual Finish	Early Finish	FY00																		
						D	J	F	M	A	M	J	J	A	S	O								
CAU 486 CORRECTIVE ACTION PLAN - AS COMPLETED																								
C48601	Preparation for Field Work	2	03JAN00	01MAY00	01MAY00A																			
C48611	Readiness Review	2	25APR00	25APR00	25APR00A																			
C48621	Pre-job Briefing	2	26APR00	26APR00	26APR00A																			
C48625	Excavation Activities	2	02MAY00	08MAY00	08MAY00A																			
C48627	Securing the Site	2	08MAY00	10MAY00	10MAY00A																			
C48628	Transporting Waste to NTS	2	10MAY00	11MAY00	11MAY00A																			
C48631	Waste Management and Disposal Characterization	2	11MAY00	11MAY00	11MAY00A																			
C48651	Waste Disposal	2	11MAY00	11MAY00	11MAY00A																			
C48671	Preparation of Closure Report	2	11MAY00		16OCT00																			

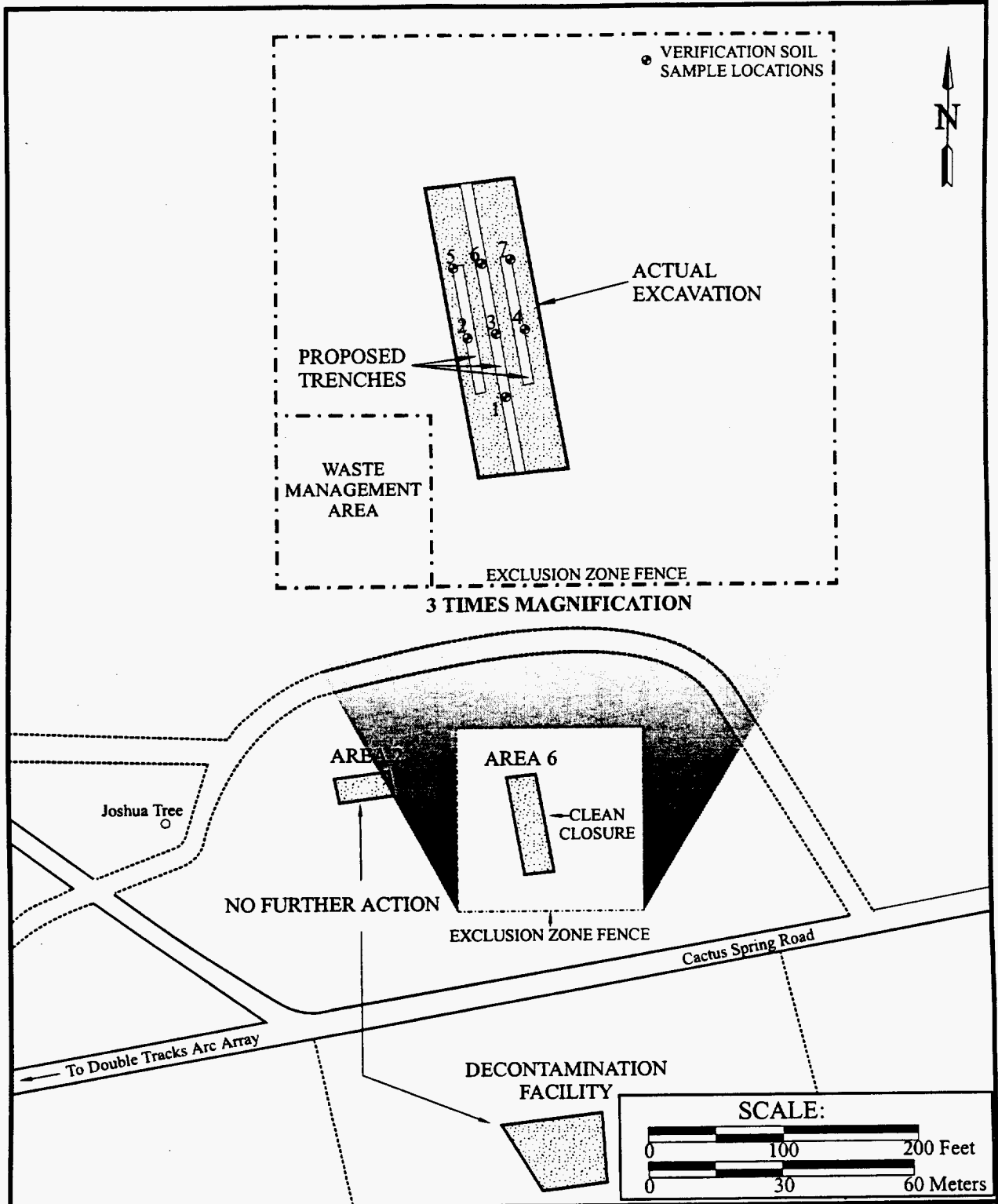


FIGURE 3
SITE PLAN OF CAU 486 SITE SHOWING AREA OF EXCAVATION

3.0 WASTE DISPOSITION

Wastes generated during the closure of CAU 486 were disposed as follows:

- Approximately 9 m³ (12 yd³) of waste soil and compactable hotline trash was staged on-site in a designated Waste Management Area and then transported off-site as Non-Regulated Waste and received at the NTS Radioactive Waste Management Site in Area 5 for disposal on May 11, 2000.

Waste disposition records, including the Uniform Hazardous Waste Manifest and NTS landfill documents, are available in NTS Waste Operations files and are summarized in Appendix B.

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4.0 CLOSURE VERIFICATION RESULTS

4.1 VERIFICATION SAMPLE ANALYSES

Verification soil samples were collected from seven locations after the excavation reached designated boundaries, removed all debris, and no visible staining was observed. The samples were collected with decontaminated stainless steel sampling scoops and placed in labeled sample containers and then secured with custody seals. A FIDLER was used to help determine if soil samples exceeded background levels. The containers were placed in an ice-filled chest, transported under chain-of-custody to the Analytical Services Laboratory in Mercury, Nevada, for analyses. Samples from all seven locations were analyzed for 20-minute gamma spectroscopy (U.S. Environmental Protection Agency, 1996).

Since no other constituents of concern were identified during site characterization activities, verification samples were only analyzed for 20-minute gamma spectroscopy. The analytical results indicate that no man-made radiation was detected above action levels and confirm that no further excavation is needed. The analytical reports are found in Appendix C.

4.2 USE RESTRICTION

A clean closure was performed at this CAS. Land use is unrestricted. A Post-Closure Plan is not necessary for this site.

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5.0 SUMMARY AND RECOMMENDATIONS

5.1 SUMMARY

The following site closure activities were performed at the CAU 486 site located at the TTR and are documented in this report:

- Preplanning and site preparation.
- Excavating and removing waste.
- Characterizing waste on-site for disposal.
- Collecting verification soil samples.
- Backfilling excavation with stockpiled soil and regraded to promote drainage and minimize ponding of surface water.
- Disposing of excavated materials following applicable federal, state, and DOE regulations.
- The field closure activities conducted at CAU 486 were completed following the approved CAP (DOE/NV, 1999a) with only minor deviations as specified in Section 2.2.

5.2 RECOMMENDATIONS

Since the clean closure for CAU 486 has been completed following the Nevada Division of Environmental Protection (NDEP) approved CAP (DOE/NV, 1999a) as documented in this CR, the DOE requests:

- A Notice of Completion be provided by the NDEP to DOE for the closure of CAU 486 (CAS 71-23-001-71DT).
- CAU 486 be moved from Appendix III to Appendix IV of the FFACO "Closed Corrective Action Units."

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6.0 REFERENCES

BN, see Bechtel Nevada.

Bechtel Nevada, 2000a. Field Management Plan for Corrective Action Unit 486: Double Tracks RADSAFE Area, Nellis Air Force Range, Nevada.

Bechtel Nevada, 2000b. Site Specific Health and Safety Plan for Corrective Action Unit 486: Double Tracks RADSAFE Area, Nellis Air Force Range, Nevada.

DOE/NV, see U.S. Department of Energy.

EPA, see U.S. Environmental Protection Agency

FFACO, see Federal Facility Agreement and Consent Order.

Federal Facility Agreement and Consent Order of 1996. Prepared by Nevada Division of Environmental Protection, U.S. Department of Energy, and U.S. Department of Defense.

U.S. Department of Energy, Nevada Operations Office, 1999a. Corrective Action Plan for Corrective Action Unit 486: Double Tracks RADSAFE Area, Nellis Air Force Range, Nevada. DOE/NV--584, Las Vegas, NV.

U.S. Department of Energy, Nevada Operations Office, 1998. Corrective Action Investigation Plan for Corrective Action Unit 486: Double Tracks RADSAFE Area, Nellis Air Force Range, Nevada. DOE/NV--523, Las Vegas, NV.

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U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846, Third Edition.

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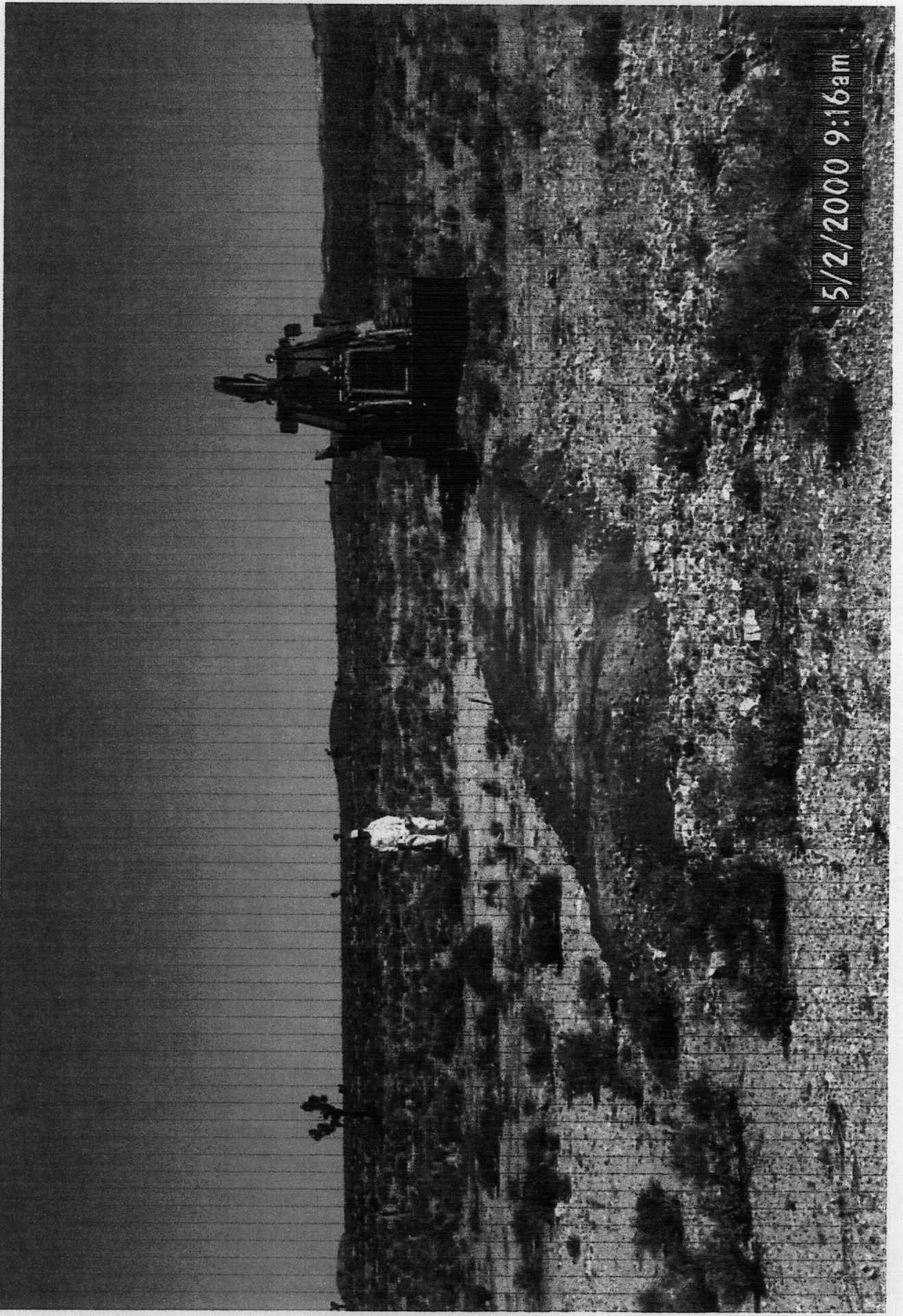
APPENDIX A

**PHOTOGRAPHS OF
CLOSURE ACTIVITY WORK AREAS**

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NOTE: 45 PHOTOGRAPHS EXIST OF THIS CLOSURE, ATTACHED IS A SELECTION

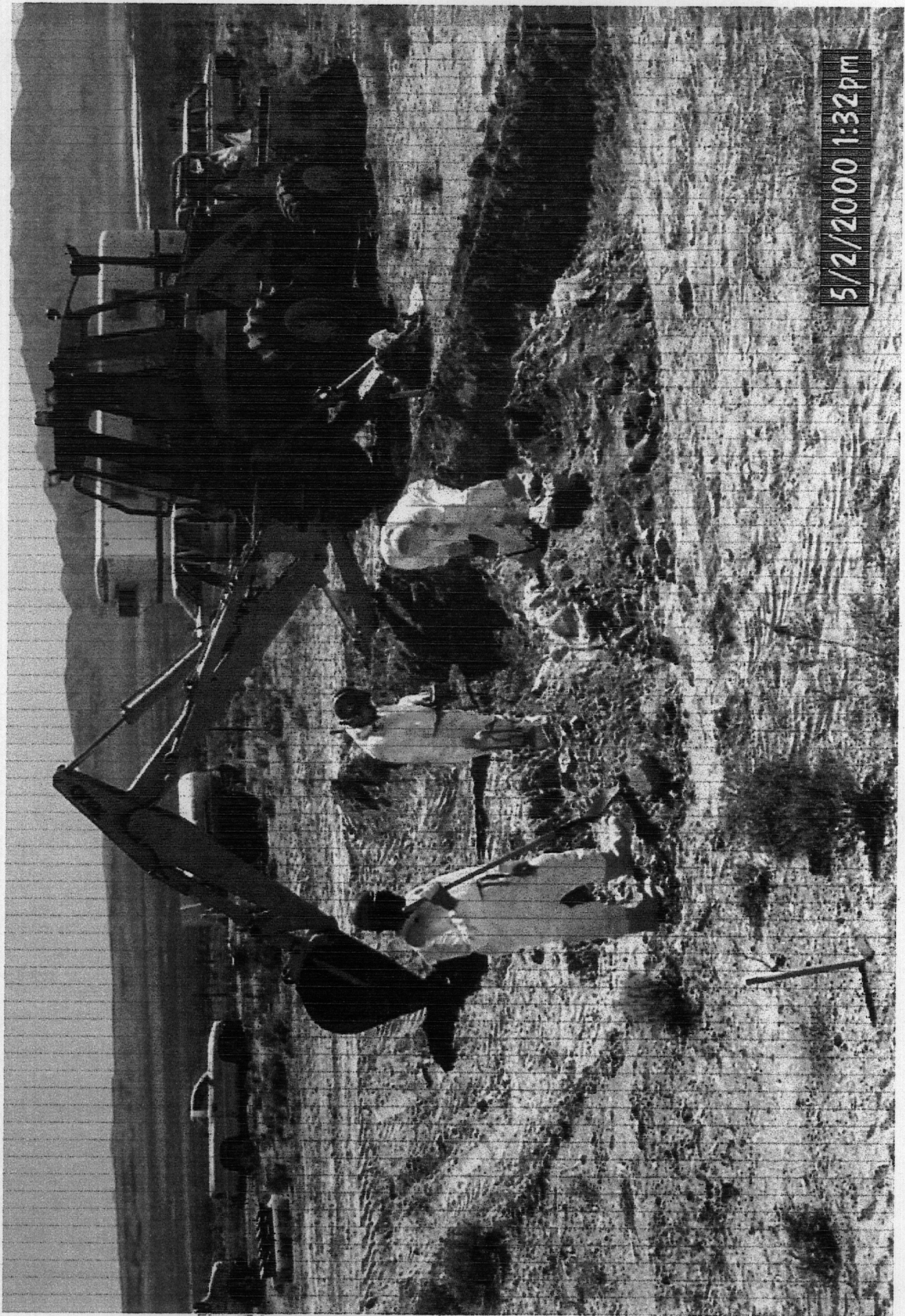
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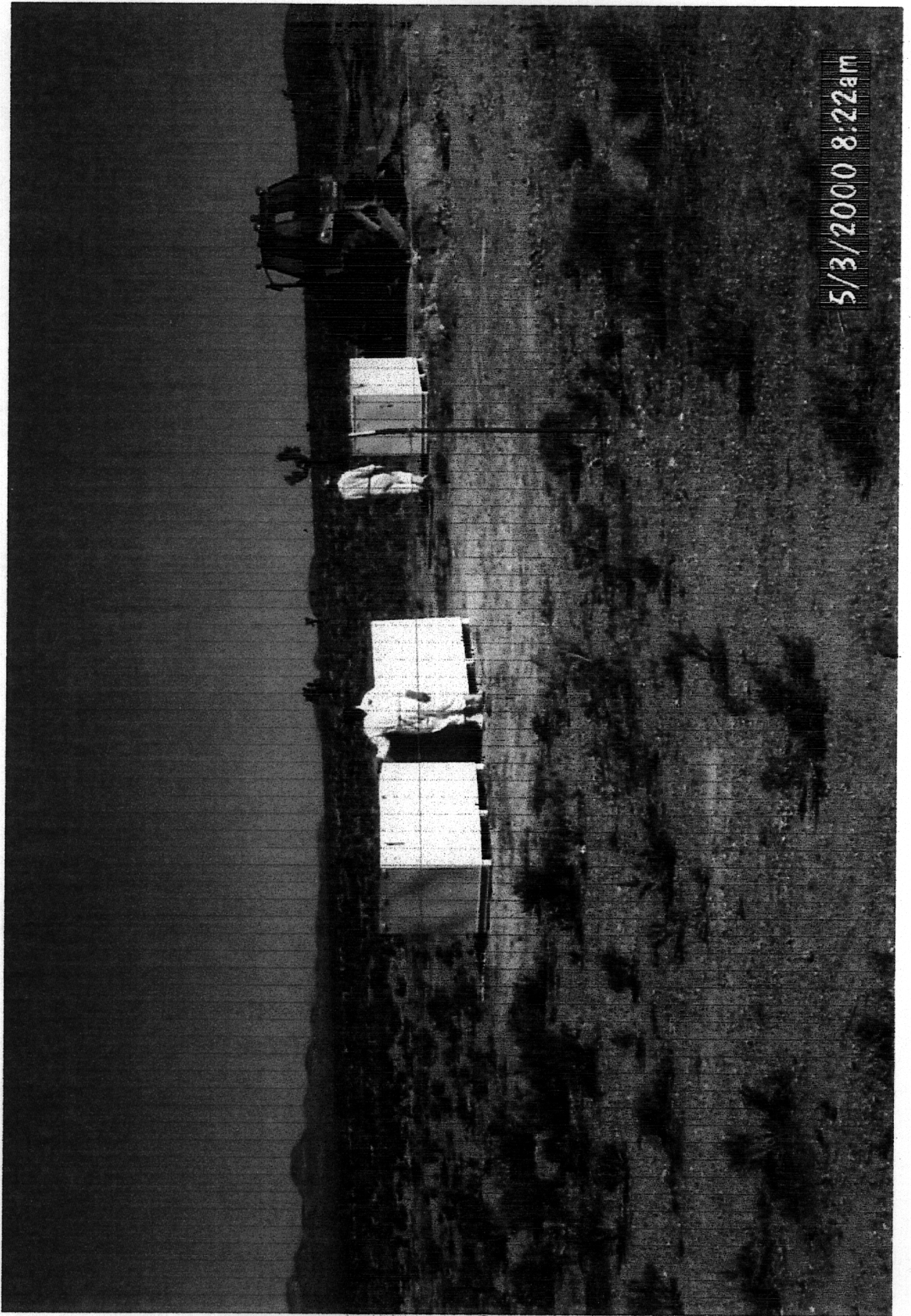
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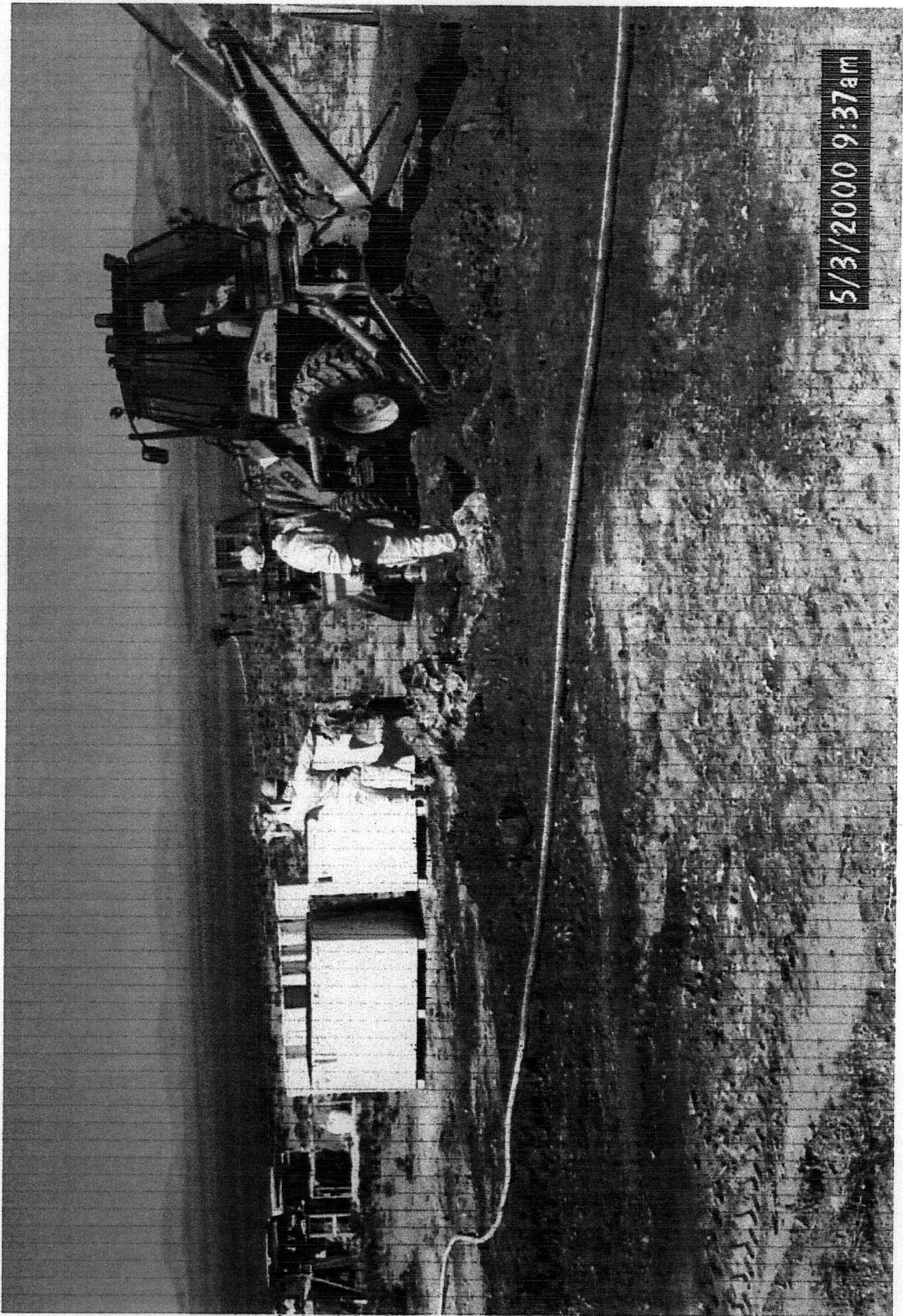
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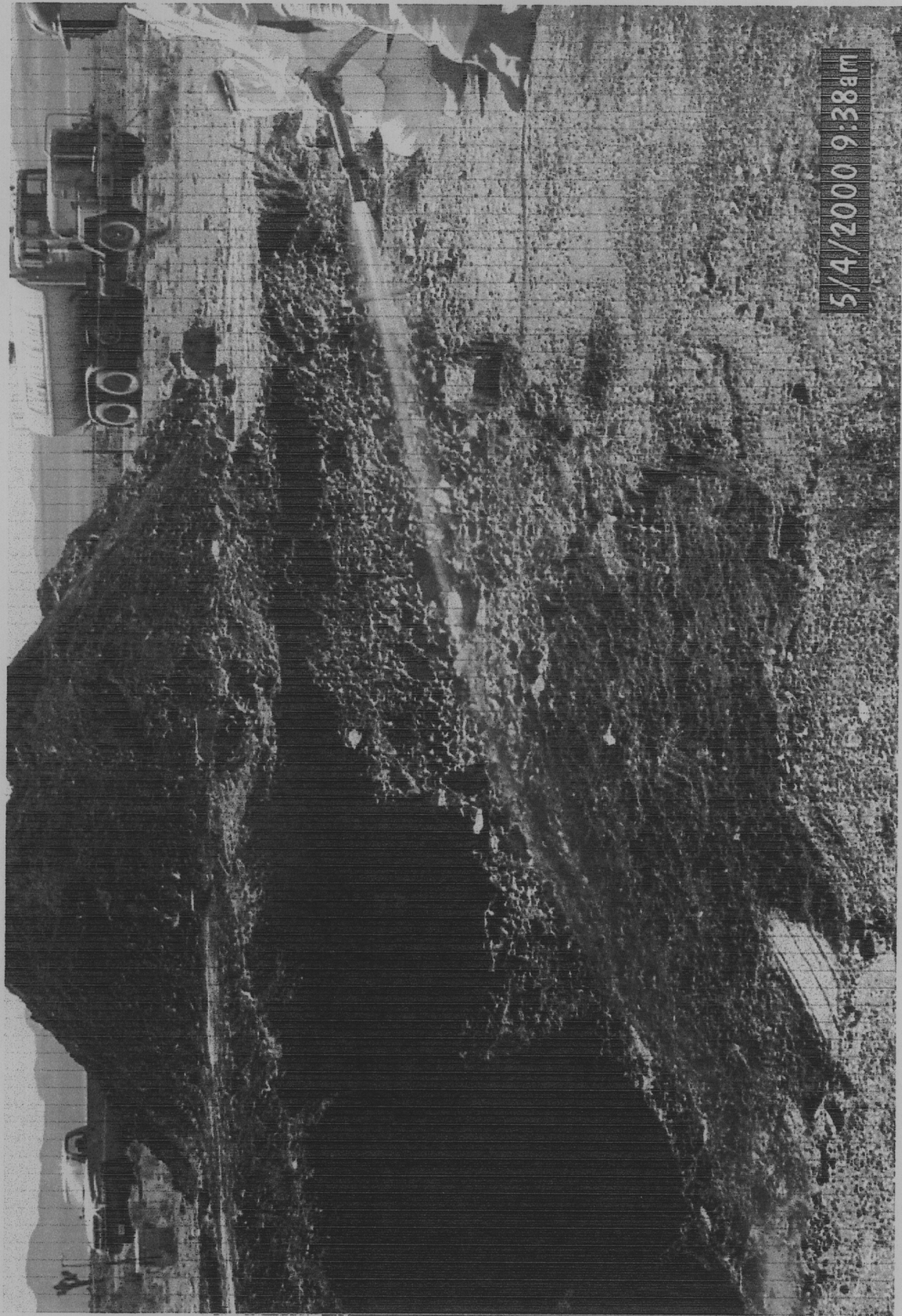
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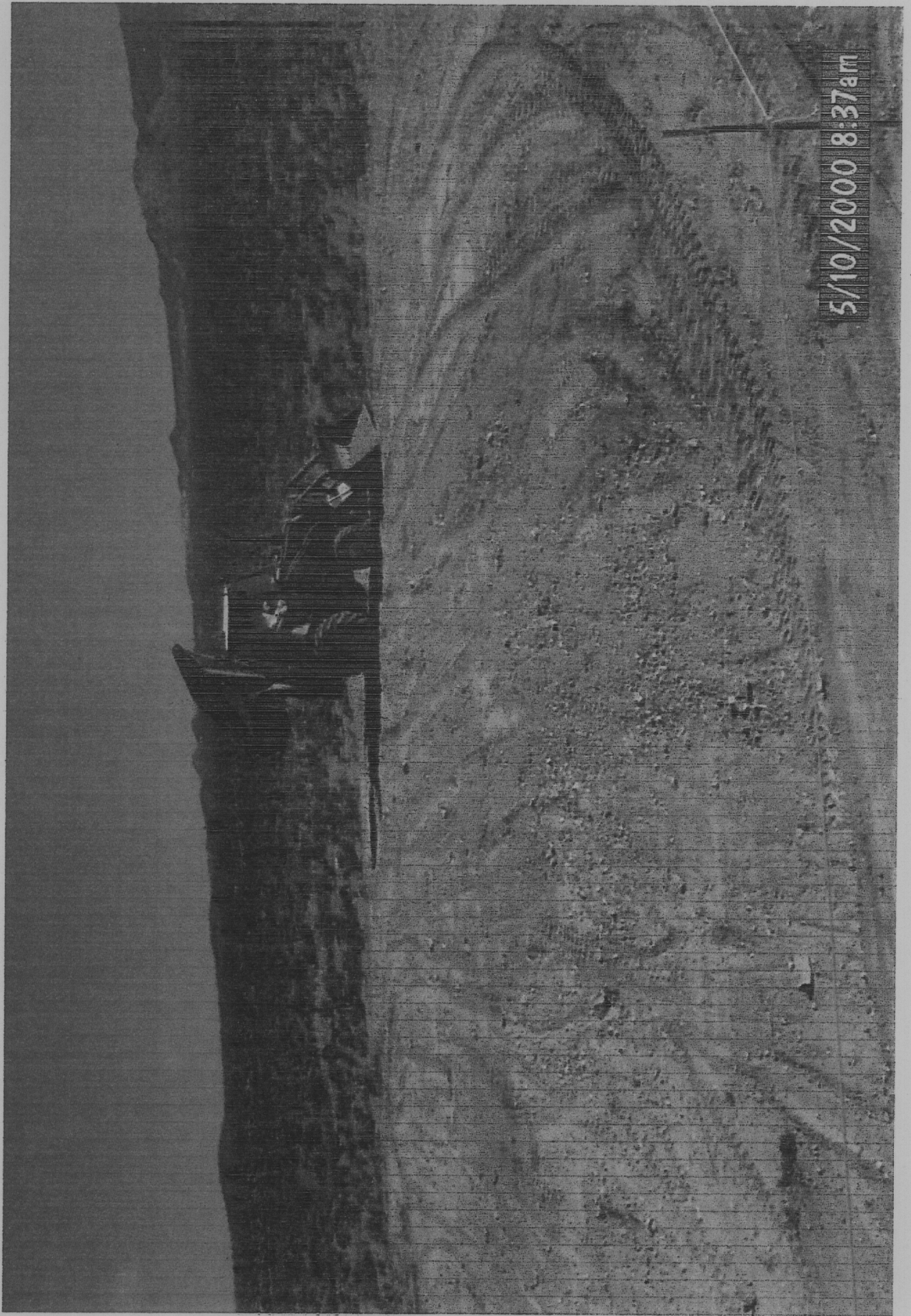
5/3/2000 8:22am



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5/10/2000 8:37am

APPENDIX B

WASTE DISPOSITION DOCUMENTATION

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CERTIFICATE OF DISPOSAL

This is to certify that the Double Tracks (CAU 486) Waste Stream Number LRY5-LLFY00006, MEF Number F00006, with package numbers 982810, 982774, 982817, and 982803 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 5 for disposal as stated below.

Shipped by:

William C. Nicosia
Print Name

Bechtel Nevada Waste Control
Organization

Scientist
Title

William C. Nicosia
Signature

5-12-00
Date

Received by:

Karen E. Williams
Print Name

Bol
Organization

Scientist
Title

Karen E. Williams
Signature

5/11/00
Date

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UNIT INVENTORY LIST

WSID NO. LRV5L4FY000016

MEF NO. F0000016

LOT NO. 00 -- ABT
YR EVENT CODE

Unit Type	Unit No.	RW Name & Emp. No.	Date	Unit Description
X2	0001	S. Duke 974692	5-4-00	Soil & Hot Line TRASH

Distribution : White - Waste Handling Facility
Pink - Generating Radiation Worker

Units: B = Bag
D₁ = 30 Gal. Drum, D₂ = 55 Gal. Drum, D₃ = 85 Gal. Drum, D₄ = Other Drum,
X₁ = 4' x 2' x 7' Box, X₂ = 4' x 4' x 7' Box,
S = Supersack, I = Intermodal Container, L = Load Wrapper (Burrito)

Bechtel Nevada

WSID NO. LRX5KLFY006106

PACKAGE INVENTORY

PKG. No. 9182774

PREPACKING CHECKS:

BOX
 DRUM
 INTERMODAL
 SUPERSACK

	YES		NO		COR	YES	NO	COR
Free From External Defects <small>(Holes, Significant Rust, Faulty Welds/Seams)</small>	/							
Package Empty	/							
Devoid of Internal Free Liquids	/							
Free From Internal Defects <small>(Holes, Significant Rust, Faulty Welds/Seams)</small>	/							
Rubber Gasket/Molding	/							
Closure Secure <small>(Intermodal Only - No Internal Light Leakage)</small>	NA							
Lifting Straps	NA							

SHIPMENT PREP:

SHIPMENT No. DIP1001019

Activity 3. OR Fty 4 Bg
 Gross Wt. 5350 lbs.
 Tare Wt. 720 lbs.
 Net Wt. 4630 lbs.

Barcodes	On
Shipment No.	/
Pkg. No.	/
Gross Wt.	/

Name Stacy L Alders
 Employee No. 10205
 Date 8-19-98

PACKING UNITS

B = Bag, D₁ = 30 Gallon Drum, D₂ = 55 Gallon Drum
 D₃ = 85 Gallon Drum, D₄ = Other Drum,
 X₁ = 4' x 4' x 7' Box, X₂ = 4' x 2' x 7' Box, S = Supersack, K = Bulk,
 I = Intermodal Container

PACKING:

UNIT	Lot No.	Unit No.	UNIT	Lot No.	Unit No.
X			N		
00 D5T					
0001					

TID No. 50115

REMARKS Soil & Hot Line Trash

Name S. Duke
 Empl. No. 974692
 Date 5-2-00



WASTE TRAVELLER

WSID NO. 14151417101016
 MEF NO. 101016
 LOT NO. 02-DBT

YR _____ EVENT CODE _____

Unit Type	Unit No.	User	Contact Reading mR/H	Prohibited Materials Excluded	RW Name & Emp. No.	Date	WAC/SPM #	Transfer Date	Receiving		Storage Container Number	Date	Packed Name & Emp. No.	Package Number	Shipping Number	Date	
									Name & Emp. No.	Date							
X ₁	0001			Y	S. Duke 974692	5-4-00						5-9-00	S. Duke 974692	98810	NK0004	5-1-00	
X ₁	0001			Y	S. Duke 974692	5-4-00						5-9-00	S. Duke 974692	98803	NK0004	5-1-00	
X ₁	0001			Y	S. Duke 974692	5-4-00						5-9-00	S. Duke 974692	98817	NK0004	5-1-00	
X ₁	0001			X	S. Duke 974692	5-4-00						5-9-00	S. Duke 974692	98877	NK0004	5-1-00	
									NA								
									NA								

REMARKS: Soil & Hot Line TRASH

Instrument Type	No.	Units Surveyed
Instrument Type	No.	Units Surveyed
Instrument Type	No.	Units Surveyed
Instrument Type	No.	Units Surveyed
Instrument Type	No.	Units Surveyed

Package Storage and Disposal Request

Shipment Number: DPL00004

Prepared By: Will C. Nease

Date: 10-May-00

Manifest Number:

Package No:	982774	Contact (mSv/h):	0	Completed Date:	10-May-00
Container Code:	210	1 Meter (mSv/h):	0	Operation Type:	B
External Volume (m ³):	2.260E+00	Gross Weight (kg):	2.427E+03	Total Activity (Bq):	3.019E+04
Waste Volume (m ³):	2.034E+00	Net Weight (kg):	2.100E+03	Activity Date:	09-May-00

Comment:

Waste Stream /Profile	Form Code	Form Description	Treatment Code	Treatment Description	Rev. No.	Revision Date	Nuclide	Qty (Bq)
LRYSLLFY00006	045	SOIL AND HOTLINE TRASH	100		00	19-Apr-00	AM-241	1.560E+03
LRYSLLFY00006	045	SOIL AND HOTLINE TRASH	100		00	19-Apr-00	PU-241	8.050E+03
LRYSLLFY00006	045	SOIL AND HOTLINE TRASH	100		00	19-Apr-00	PU-240	1.780E+03
LRYSLLFY00006	045	SOIL AND HOTLINE TRASH	100		00	19-Apr-00	PU-239	1.890E+04

Package No:	982803	Contact (mSv/h):	0	Completed Date:	10-May-00
Container Code:	210	1 Meter (mSv/h):	0	Operation Type:	B
External Volume (m ³):	2.260E+00	Gross Weight (kg):	3.408E+03	Total Activity (Bq):	3.824E+04
Waste Volume (m ³):	2.034E+00	Net Weight (kg):	3.075E+03	Activity Date:	09-May-00

Comment:

Waste Stream /Profile	Form Code	Form Description	Treatment Code	Treatment Description	Rev. No.	Revision Date	Nuclide	Qty (Bq)
LRYSLLFY00006	045	SOIL AND HOTLINE TRASH	100		00	19-Apr-00	AM-241	1.980E+03
LRYSLLFY00006	045	SOIL AND HOTLINE TRASH	100		00	19-Apr-00	PU-241	1.020E+04
LRYSLLFY00006	045	SOIL AND HOTLINE TRASH	100		00	19-Apr-00	PU-240	2.260E+03
LRYSLLFY00006	045	SOIL AND HOTLINE TRASH	100		00	19-Apr-00	PU-239	2.380E+04

Package No:	982810	Contact (mSv/h):	0	Completed Date:	10-May-00
Container Code:	210	1 Meter (mSv/h):	0	Operation Type:	B
External Volume (m ³):	2.260E+00	Gross Weight (kg):	3.590E+03	Total Activity (Bq):	3.343E+07
Waste Volume (m ³):	2.034E+00	Net Weight (kg):	3.261E+03	Activity Date:	09-May-00

Comment:

Waste Stream /Profile	Form Code	Form Description	Treatment Code	Treatment Description	Rev. No.	Revision Date	Nuclide	Qty (Bq)
LRYSLLFY00006	045	SOIL AND HOTLINE TRASH	100		00	19-Apr-00	AM-241	1.730E+06
LRYSLLFY00006	045	SOIL AND HOTLINE TRASH	100		00	19-Apr-00	PU-241	8.920E+06
LRYSLLFY00006	045	SOIL AND HOTLINE TRASH	100		00	19-Apr-00	PU-240	1.980E+06
LRYSLLFY00006	045	SOIL AND HOTLINE TRASH	100		00	19-Apr-00	PU-239	2.080E+07

Package Storage and Disposal Request

Shipment Number: DPL00004

Prepared By: W. C. Nelson

Date: 10-May-00

Manifest Number:

Package No:	982817	Contact (mSv/h):	0	Completed Date:	10-May-00
Container Code:	210	1 Meter (mSv/h):	0	Operation Type:	B
External Volume (m ³):	2.260E+00	Gross Weight (kg):	2.685E+03	Total Activity (Bq):	4.082E+05
Waste Volume (m ³):	2.034E+00	Net Weight (kg):	2.368E+03	Activity Date:	09-May-00

Comment:

Waste Stream /Profile	Form Code	Form Description	Treatment Code	Treatment Description	Rev. No.	Revision Date	Nuclide	Qty (Bq)
LR5LLFY00006	045	SOIL AND HOTLINE TRASH	100		00	19-Apr-00	AM-241	2.110E+04
LR5LLFY00006	045	SOIL AND HOTLINE TRASH	100		00	19-Apr-00	PU-241	1.090E+05
LR5LLFY00006	045	SOIL AND HOTLINE TRASH	100		00	19-Apr-00	PU-240	2.410E+04
LR5LLFY00006	045	SOIL AND HOTLINE TRASH	100		00	19-Apr-00	PU-239	2.640E+05

APPENDIX C

**VERIFICATION SAMPLE
ANALYTICAL REPORTS**

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Bechtel Nevada Corporation

ANALYTICAL SERVICES LABORATORY
 P.O. Box 3936, N. Las Vegas, NV 89036

Reported to: Env. Restoration - Ind. Sites
 P.O. Box 98521
 M/S NTS306
 Las Vegas ,NV, 89193-8521

Type: Soil, Gross

Report Date: 15-NOV-00
 Sample Delivery Group: D321
 Batch: N772
 Program: 720

Analysis: Gamma Spec.-20 Minute Scan

Report No. :

Sample Identification *****	Isotope	Result	Error	Qual Flag	MDC	Result Units	Analysis Date	Sample Coll Date	Size	Size Units	Tracer Yield %	Spike Recv %	System Detector	Packet-Item Sample
CAU4860001	K 40	2.74E+01	5.0E+00		1.4E+00	pCi/g	05-18-00	05-08-00	7.25E+02	gm			05-01	H2977-0-75468
CAU4860001	RA226	3.64E+00	1.9E+00		1.1E+00	pCi/g	05-18-00	05-08-00	7.25E+02	gm			05-01	H2977-0-75468
CAU4860001	RA226	2.34E+00	5.6E-01		2.8E-01	pCi/g	05-18-00	05-08-00	7.25E+02	gm			05-01	H2977-0-75468
CAU4860001	TH228	2.31E+00	4.1E-01		1.4E-01	pCi/g	05-18-00	05-08-00	7.25E+02	gm			05-01	H2977-0-75468
CAU4860001	TH232	2.00E+00	7.8E-01		4.9E-01	pCi/g	05-18-00	05-08-00	7.25E+02	gm			05-01	H2977-0-75468
CAU4860001	AM241	0.00E+00	0.0E+00	U	7.1E-01	pCi/g	05-18-00	05-08-00	7.25E+02	gm			05-01	H2977-0-75468
CAU4860001	CS137	0.00E+00	0.0E+00	U	7.3E-02	pCi/g	05-18-00	05-08-00	7.25E+02	gm			05-01	H2977-0-75468
CAU4860002	K 40	2.87E+01	5.2E+00		1.4E+00	pCi/g	05-18-00	05-08-00	7.46E+02	gm			05-01	H2977-1-75471
CAU4860002	RA226	1.49E+00	3.6E-01		1.6E-01	pCi/g	05-18-00	05-08-00	7.46E+02	gm			05-01	H2977-1-75471
CAU4860002	TH228	2.09E+00	3.9E-01		1.4E-01	pCi/g	05-18-00	05-08-00	7.46E+02	gm			05-01	H2977-1-75471

Note: Error is the Prep + 2.0 Sigma Error

Qualification Flags:

- E = Estimated Quantity
- H = High Recovery for Sample
- J = Result is less than the RDL
- L = Low Recovery for Sample
- P = Preliminary Results
- Q = Bad Instrument Quality Control, Result is OK
- R = Results are Unusable, Resampling is Necessary
- U = Result is less than Minimum Detectable Activity

Comment:

Data generated from analyses of CAU 486 samples. This report is follow up to original submitted.

Prepared by:  Date: 11/15/00
 Approved by:  Date: 11-15-00

Bechtel Nevada Corporation

ANALYTICAL SERVICES LABORATORY
 P.O. Box 3936, N. Las Vegas, NV 89036

Reported to: Env. Restoration - Ind. Sites
 P.O. Box 98521
 M/S NTS306
 Las Vegas, NV, 89193-8521

Type: Soil, Gross


Analysis: Gamma Spec.-20 Minute Scan


Report Date: 15-NOV-00
 Sample Delivery Group: D321
 Batch: N772
 Program: 720

Report No. :

Sample Identification ****	Isotope	Result	Error	Qual Flag	MDC	Result Units	Analysis Date	Sample Coll Date	Size	Size Units	Tracer Yield %	Spike Recv %	System Detector	Packet-Item Sample
CAU4860002	TH232	2.02E+00	7.8E-01		4.9E-01	pCi/g	05-18-00	05-08-00	7.46E+02	gm			05-01	H2977-1-75471
CAU4860002	TH232	1.63E+00	5.8E-01		3.3E-01	pCi/g	05-18-00	05-08-00	7.46E+02	gm			05-01	H2977-1-75471
CAU4860002	AM241	0.00E+00	0.0E+00	U	6.5E-01	pCi/g	05-18-00	05-08-00	7.46E+02	gm			05-01	H2977-1-75471
CAU4860002	CS137	0.00E+00	0.0E+00	U	7.2E-02	pCi/g	05-18-00	05-08-00	7.46E+02	gm			05-01	H2977-1-75471
CAU4860003	K 40	2.62E+01	4.9E+00		1.1E+00	pCi/g	05-18-00	05-08-00	7.17E+02	gm			05-01	H2977-2-75472
CAU4860003	RA226	1.25E+00	3.3E-01		1.9E-01	pCi/g	05-18-00	05-08-00	7.17E+02	gm			05-01	H2977-2-75472
CAU4860003	TH228	2.10E+00	3.9E-01		1.4E-01	pCi/g	05-18-00	05-08-00	7.17E+02	gm			05-01	H2977-2-75472
CAU4860003	TH232	1.88E+00	7.3E-01		4.9E-01	pCi/g	05-18-00	05-08-00	7.17E+02	gm			05-01	H2977-2-75472
CAU4860003	AM241	0.00E+00	0.0E+00	U	6.6E-01	pCi/g	05-18-00	05-08-00	7.17E+02	gm			05-01	H2977-2-75472
CAU4860003	CS137	0.00E+00	0.0E+00	U	7.3E-02	pCi/g	05-18-00	05-08-00	7.17E+02	gm			05-01	H2977-2-75472

Comment: Data generated from analyses of CAU 486 samples. This report is follow up to original submitted.

Prepared by:  Date: 11/15/00

Approved by:  Date: 11-15-00

Qualification Flags:
 E = Estimated Quantity
 H = High Recovery for Sample
 J = Result is less than the RDL
 L = Low Recovery for Sample
 P = Preliminary Results
 Q = Bad Instrument Quality Control, Result is OK
 R = Results are Unusable, Resampling is Necessary
 U = Result is less than Minimum Detectable Activity

Note: Error is the Prep + 2.0 Sigma Error

Bechtel Nevada Corporation

ANALYTICAL SERVICES LABORATORY
 P.O. Box 3936, N. Las Vegas, NV 89036

Reported to: Env. Restoration - Ind. Sites
 P.O. Box 98521
 M/S NTS306
 Las Vegas ,NV, 89193-8521

Type: Soil, Gross

Report Date: 15-NOV-00
 Sample Delivery Group: D321
 Batch: N772
 Program: 720

Analysis: Gamma Spec.-20 Minute Scan

Report No. :

Sample Identification *****	Isotope	Result	Error	Qual Flag	MDC	Result Units	Analysis Date	Sample Coll Date	Size	Size Units	Tracer Yield %	Spike Recv %	System Detector	Packet-Item Sample
CAU4860004	K 40	2.55E+01	4.8E+00		1.4E+00	pCi/g	05-18-00	05-08-00	7.53E+02	gm			05-01	H2977-3-75473
CAU4860004	RA226	1.61E+00	3.7E-01		1.9E-01	pCi/g	05-18-00	05-08-00	7.53E+02	gm			05-01	H2977-3-75473
CAU4860004	TH228	2.25E+00	4.0E-01		1.4E-01	pCi/g	05-18-00	05-08-00	7.53E+02	gm			05-01	H2977-3-75473
CAU4860004	TH232	2.49E+00	7.3E-01		3.2E-01	pCi/g	05-18-00	05-08-00	7.53E+02	gm			05-01	H2977-3-75473
CAU4860004	AM241	0.00E+00	0.0E+00	U	6.8E-01	pCi/g	05-18-00	05-08-00	7.53E+02	gm			05-01	H2977-3-75473
CAU4860004	CS137	0.00E+00	0.0E+00	U	7.2E-02	pCi/g	05-18-00	05-08-00	7.53E+02	gm			05-01	H2977-3-75473
CAU4860005	K 40	2.55E+01	4.8E+00		1.4E+00	pCi/g	05-18-00	05-08-00	8.05E+02	gm			05-01	H2977-4-75474
CAU4860005	RA226	1.59E+00	3.7E-01		1.4E-01	pCi/g	05-18-00	05-08-00	8.05E+02	gm			05-01	H2977-4-75474
CAU4860005	TH228	1.80E+00	3.6E-01		1.4E-01	pCi/g	05-18-00	05-08-00	8.05E+02	gm			05-01	H2977-4-75474
CAU4860005	TH232	1.68E+00	7.5E-01		4.9E-01	pCi/g	05-18-00	05-08-00	8.05E+02	gm			05-01	H2977-4-75474

Qualification Flags: Note: Error is the Prep + 2.0 Sigma Error

E = Estimated Quantity
 H = High Recovery for Sample
 J = Result is less than the RDL
 L = Low Recovery for Sample
 P = Preliminary Results
 Q = Bad Instrument Quality Control, Result is OK
 R = Results are Unusable, Resampling is Necessary
 U = Result is less than Minimum Detectable Activity

Comment:

Data generated from analyses of CAU 486 samples. This report is follow up to original submitted.

Prepared by:  Date: 11/15/00

Approved by:  Date: 11-15-00

Bechtel Nevada Corporation

ANALYTICAL SERVICES LABORATORY
 P.O. Box 3936, N. Las Vegas, NV 89036

Reported to: Env. Restoration - Ind. Sites
 P.O. Box 98521
 M/S NTS306
 Las Vegas, NV, 89193-8521

Type: Soil, Gross

Analysis: Gamma Spec.-20 Minute Scan

Report Date: 15-NOV-00
 Sample Delivery Group: D321
 Batch: N772
 Program: 720

Report No. :

Sample Identification *****	Isotope	Result	Error	Qual Flag	MDC	Result Units	Analysis Date	Sample Coll Date	Size	Size Units	Tracer Yield %	Spike Recv %	System Detector	Packet-Item Sample
CAU4860005	AM241	0.00E+00	0.0E+00	U	6.8E-01	pCi/g	05-18-00	05-08-00	8.05E+02	gm			05-01	H2977-4-75474
CAU4860005	CS137	0.00E+00	0.0E+00	U	7.2E-02	pCi/g	05-18-00	05-08-00	8.05E+02	gm			05-01	H2977-4-75474
CAU4860006	K 40	2.53E+01	4.7E+00		1.4E+00	pCi/g	05-18-00	05-08-00	7.73E+02	gm			05-01	H2977-5-75481
CAU4860006	RA226	3.64E+00	1.9E+00		1.1E+00	pCi/g	05-18-00	05-08-00	7.73E+02	gm			05-01	H2977-5-75481
CAU4860006	RA226	1.57E+00	3.8E-01		1.4E-01	pCi/g	05-18-00	05-08-00	7.73E+02	gm			05-01	H2977-5-75481
CAU4860006	TH228	2.15E+00	4.0E-01		1.4E-01	pCi/g	05-18-00	05-08-00	7.73E+02	gm			05-01	H2977-5-75481
CAU4860006	TH232	1.77E+00	6.1E-01		3.2E-01	pCi/g	05-18-00	05-08-00	7.73E+02	gm			05-01	H2977-5-75481
CAU4860006	AM241	0.00E+00	0.0E+00	U	7.1E-01	pCi/g	05-18-00	05-08-00	7.73E+02	gm			05-01	H2977-5-75481
CAU4860006	CS137	0.00E+00	0.0E+00	U	7.2E-02	pCi/g	05-18-00	05-08-00	7.73E+02	gm			05-01	H2977-5-75481
CAU4860007	K 40	2.60E+01	4.8E+00		1.4E+00	pCi/g	05-18-00	05-08-00	8.03E+02	gm			05-01	H2977-6-75482

Comment:

Data generated from analyses of CAU 486 samples. This report is follow up to original submitted.

Prepared by:  Date: 11/15/00

Approved by:  Date: 11-15-00

Qualification Flags:

- E = Estimated Quantity
- H = High Recovery for Sample
- J = Result is less than the RDL
- L = Low Recovery for Sample
- P = Preliminary Results
- Q = Bad Instrument Quality Control, Result is OK
- R = Results are Unusable, Resampling is Necessary
- U = Result is less than Minimum Detectable Activity

Note: Error is the Prep + 2.0 Sigma Error

Bechtel Nevada Corporation

ANALYTICAL SERVICES LABORATORY
 P.O. Box 3936, N. Las Vegas, NV 89036

Reported to: Env. Restoration - Ind. Sites
 P.O. Box 98521
 M/S NTS306
 Las Vegas, NV, 89193-8521

Type: Soil, Gross

Report Date: 15-NOV-00
 Sample Delivery Group: D321
 Batch: N772
 Program: 720

Analysis: Gamma Spec.-20 Minute Scan

Report No. :

Sample Identification *****	Isotope	Result	Error	Qual Flag	MDC	Result Units	Analysis Date	Sample Coll Date	Size	Size Units	Tracer Yield %	Spike Recv %	System Detector	Packet-Item Sample
CAU4860007	RA226	1.37E+00	3.6E-01		1.9E-01	pCi/g	05-18-00	05-08-00	8.03E+02	gm			05-01	H2977-6-75482
CAU4860007	TH228	2.08E+00	4.0E-01		1.4E-01	pCi/g	05-18-00	05-08-00	8.03E+02	gm			05-01	H2977-6-75482
CAU4860007	TH232	2.52E+00	7.7E-01		4.9E-01	pCi/g	05-18-00	05-08-00	8.03E+02	gm			05-01	H2977-6-75482
CAU4860007	AM241	0.00E+00	0.0E+00	U	6.9E-01	pCi/g	05-18-00	05-08-00	8.03E+02	gm			05-01	H2977-6-75482
CAU4860007	CS137	0.00E+00	0.0E+00	U	7.2E-02	pCi/g	05-18-00	05-08-00	8.03E+02	gm			05-01	H2977-6-75482
CAU4860008	K 40	2.73E+01	5.0E+00		1.4E+00	pCi/g	05-18-00	05-08-00	7.96E+02	gm			05-01	H2977-7-75511
CAU4860008	RA226	1.43E+00	3.5E-01		1.9E-01	pCi/g	05-18-00	05-08-00	7.96E+02	gm			05-01	H2977-7-75511
CAU4860008	TH228	1.99E+00	3.8E-01		1.4E-01	pCi/g	05-18-00	05-08-00	7.96E+02	gm			05-01	H2977-7-75511
CAU4860008	TH232	1.91E+00	7.6E-01		4.9E-01	pCi/g	05-18-00	05-08-00	7.96E+02	gm			05-01	H2977-7-75511
CAU4860008	AM241	0.00E+00	0.0E+00	U	6.9E-01	pCi/g	05-18-00	05-08-00	7.96E+02	gm			05-01	H2977-7-75511

Comment:

Data generated from analyses of CAU 486 samples. This report is follow up to original submitted.

Prepared by:  Date: 11-15-00
 Approved by:  Date: 11-19-00

Note: Error is the Prep + 2.0 Sigma Error

Qualification Flags:

- E = Estimated Quantity
- H = High Recovery for Sample
- J = Result is less than the RDL
- L = Low Recovery for Sample
- P = Preliminary Results
- Q = Bad Instrument Quality Control, Result is OK
- R = Results are Unusable, Resampling is Necessary
- U = Result is less than Minimum Detectable Activity

Bechtel Nevada Corporation

ANALYTICAL SERVICES LABORATORY
 P.O. Box 3936, N. Las Vegas, NV 89036

Reported to: Env. Restoration - Ind. Sites Type: Soil, Gross Report Date: 15-NOV-00
 P.O. Box 98521 Sample Delivery Group: D321
 M/S NTS306 Batch: N772
 Las Vegas, NV, 89193-8521 Program: 720
 Analysis: Gamma Spec.-20 Minute Scan

Report No. :

Sample Identification *****	Isotope	Result	Error	Qual Flag	MDC	Result Units	Analysis Date	Sample Coll Date	Size	Size Units	Tracer Yield %	Spike Recv %	System Detector	Packet-Item Sample
CAU4860008	CS137	0.00E+00	0.0E+00	U	7.2E-02	pCi/g	05-18-00	05-08-00	7.96E+02	gm			05-01	H2977-7-75511
QA BKGEmpy Btl U05	No Nucl Det	0.00E+00	0.0E+00	U	0.0E+00	NA	05-18-00	01-19-00	1.00E+00	gm			05-01	Q0796-0-00286
QA SP:NAS-A9987	AM241	1.63E+01	2.1E+00		2.6E-01	pCi/g	05-18-00	03-01-99	8.35E+02	gm		94.7	05-01	Q0797-4-13018
QA SP:NAS-A9987	CO60	2.44E+01	2.7E+00		1.2E-01	pCi/g	05-18-00	03-01-99	8.35E+02	gm		97.7	05-01	Q0797-4-13018
QA SP:NAS-A9987	CS137	1.98E+01	2.1E+00		9.5E-02	pCi/g	05-18-00	03-01-99	8.35E+02	gm		101.1	05-01	Q0797-4-13018

Comment: Data generated from analyses of CAU 486 samples. This report is follow up to original submitted.

Prepared by: *[Signature]* Date: 11/15/00

Approved by: *[Signature]* Date: 11-15-00

Qualification Flags:
 E = Estimated Quantity
 H = High Recovery for Sample
 J = Result is less than the RDL
 L = Low Recovery for Sample
 P = Preliminary Results
 Q = Bad Instrument Quality Control, Result is OK
 R = Results are Unusable, Resampling is Necessary
 U = Result is less than Minimum Detectable Activity

Note: Error is the Prep + 2.0 Sigma Error

Bechtel Nevada Corporation

ANALYTICAL SERVICES LABORATORY
 P.O. Box 3936, N. Las Vegas, NV 89036

Reported to: Env. Restoration - Ind. Sites
 P.O. Box 98521
 M/S NTS306
 Las Vegas ,NV, 89193-8521

Type: Water

Analysis: Gamma Spec.-20 Minute Scan

Report Date: 16-NOV-00
 Sample Delivery Group: D321
 Batch: N773
 Program: 720

Report No. :

Sample Identification *****	Isotope	Result	Error	Qual Flag	MDC	Result Units	Analysis Date	Sample Coll Date	Size	Size Units	Tracer Yield %	Spike Recv %	System Detector	Packet-Item Sample
CAU4860009	No Nucl Det	0.00E+00	0.0E+00	U	0.0E+00	NA	05-18-00	05-08-00	4.94E+02	ml			06-01	H2978-0-75362
CAU4860009	U 238	0.00E+00	0.0E+00	U	1.3E+04	pCi/L	05-18-00	05-08-00	4.94E+02	ml			06-01	H2978-0-75362
CAU4860009	AM241	0.00E+00	0.0E+00	U	2.3E+02	pCi/L	05-18-00	05-08-00	4.94E+02	ml			06-01	H2978-0-75362
QA BKGWater U06	No Nucl Det	0.00E+00	0.0E+00	U	0.0E+00	NA	05-18-00	01-19-00	5.00E+02	ml			06-01	Q0813-2-00287
QA BKGWater U06	CO60	0.00E+00	0.0E+00	U	7.5E+01	pCi/L	05-18-00	01-19-00	5.00E+02	ml			06-01	Q0813-2-00287
QA BKGWater U06	AM241	0.00E+00	0.0E+00	U	2.8E+02	pCi/L	05-18-00	01-19-00	5.00E+02	ml			06-01	Q0813-2-00287
QA BKGWater U06	CS137	0.00E+00	0.0E+00	U	9.3E+01	pCi/L	05-18-00	01-19-00	5.00E+02	ml			06-01	Q0813-2-00287
QA SP:QAW-6	AM241	3.32E+05	2.7E+04		9.0E+02	pCi/L	05-18-00	08-01-90	2.25E+02	ml		106.8	06-01	Q0814-1-13019
QA SP:QAW-6	CO60	3.13E+05	2.8E+04		1.4E+03	pCi/L	05-18-00	08-01-90	2.25E+02	ml		97.6	06-01	Q0814-1-13019
QA SP:QAW-6	CS137	2.71E+05	2.2E+04		4.8E+02	pCi/L	05-18-00	08-01-90	2.25E+02	ml		98.3	06-01	Q0814-1-13019

Note: Error is the Prep + 2.0 Sigma Error

Qualification Flags:

- E = Estimated Quantity
- H = High Recovery for Sample
- J = Result is less than the RDL
- L = Low Recovery for Sample
- P = Preliminary Results
- Q = Bad Instrument Quality Control, Result is OK
- R = Results are Unusable, Resampling is Necessary
- U = Result is less than Minimum Detectable Activity

Comment:

Data generated from analyses of CAU 486 samples. This report is follow up to original submitted.

Prepared by:  Date: 11/16/00
 Approved by:  Date: 11-16-00

NTS - PRODUCTION

CHAIN OF CUSTODY RECORD: CAU 486 DTRSA-1

Signature: 0321

Job Number: 23220

Facility ID: NTS

Sampling Event: CAU 486 DTRSA

COC Number: CAU 486 DTRSA-1

Laboratory: ASL

Cooler ID:

Cooler Temp:

Number of Coolers:

Cooler Units:

Logbook No.:

Delivery Order ID:

SEIR No.: CAU 486 DTRSA-1-0

Charge Code: C7C774AA

EKO/340/720

H2977, H2978

Sampled By: D.H. Cox

Signature: Donald A. Cox

Print Sign Sign

Requested Analysis:

Site ID	Station ID	Sample ID	Sample Type	Matrix Code	Collection Start Date	Collection End Date	Start Time	End Time	Parameter Code	Anal Cd	Filt Cd	Prior Lvl	Anal Lvl	Comments
52	DBLE TRACKS RADS CAU4860001		GRAB	SO	08MAY00	08MAY00	1535	1535	08MAY00					
	Pay Item Description													
	11_04	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle								NORM	U	60	STD	Ensure 1 pCi/g for Am-241

Site ID	Station ID	Sample ID	Sample Type	Matrix Code	Collection Start Date	Collection End Date	Start Time	End Time	Parameter Code	Anal Cd	Filt Cd	Prior Lvl	Anal Lvl	Comments
52	DBLE TRACKS RADS CAU4860002		GRAB	SO	08MAY00	08MAY00	1540	1540	08MAY00					
	Pay Item Description													
	11_04	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle								NORM	U	60	STD	Ensure 1 pCi/g for Am-241

Site ID	Station ID	Sample ID	Sample Type	Matrix Code	Collection Start Date	Collection End Date	Start Time	End Time	Parameter Code	Anal Cd	Filt Cd	Prior Lvl	Anal Lvl	Comments
52	DBLE TRACKS RADS CAU4860003		GRAB	SO	08MAY00	08MAY00	1545	1545	08MAY00					
	Pay Item Description													
	11_04	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle								NORM	U	60	STD	Ensure 1 pCi/g for Am-241

Requested Analysis:

Site ID	Station ID	Sample ID	Samp Type	Matrix Code	Collection Start Date	Collection End Date	Start Time	End Time
52	DBLE TRACKS RADS CAU4860004		GRAB	SO	CBMAY00	CBMAY00	1550	1550

Pay Item	Description	Parameter Code	Anal Cd	Filt Cd	Prior Lvl	Anal Lvl	Comments
11_04	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle		NORM	U	60	STD	Ensure 1 pCi/g for Am-241

Site ID	Station ID	Sample ID	Samp Type	Matrix Code	Collection Start Date	Collection End Date	Start Time	End Time
52	DBLE TRACKS RADS CAU4860005		GRAB	SO	CBMAY00	CBMAY00	1555	1555

Pay Item	Description	Parameter Code	Anal Cd	Filt Cd	Prior Lvl	Anal Lvl	Comments
11_04	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle		NORM	U	60	STD	Ensure 1 pCi/g for Am-241

Site ID	Station ID	Sample ID	Samp Type	Matrix Code	Collection Start Date	Collection End Date	Start Time	End Time
52	DBLE TRACKS RADS CAU4860006		GRAB	SO	CBMAY00	CBMAY00	1600	1600

Pay Item	Description	Parameter Code	Anal Cd	Filt Cd	Prior Lvl	Anal Lvl	Comments
11_04	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle		NORM	U	60	STD	Ensure 1 pCi/g for Am-241

Site ID	Station ID	Sample ID	Samp Type	Matrix Code	Collection Start Date	Collection End Date	Start Time	End Time
52	DBLE TRACKS RADS CAU4860007		GRAB	SO	CBMAY00	CBMAY00	1605	1605

Pay Item	Description	Parameter Code	Anal Cd	Filt Cd	Prior Lvl	Anal Lvl	Comments
11_04	Gamma Spec.-20 Min scan / Soil, 500 mL Bottle		NORM	U	60	STD	Ensure 1 pCi/g for Am-241

Requested Analysis:

Site ID	Station ID	Sample ID	Samp Type	Matrix Code	Collection Start Date	Start Time	Collection End Date	End Time
52	DBLE TRACKS RADS CAU4860008		GRAB	SO	08MAY00	1605	08MAY00	1605

Pay Item	Description	Parameter Code	Anal Cd	Fill Cd	Prior Lvl	Anal Lvl	Comments
11_04	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle		NORM	U	60	STD	Ensure 1 pCi/g for Am-241

Pay Item	Description	Parameter Code	Anal Cd	Fill Cd	Prior Lvl	Anal Lvl	Comments
11_04	Gamma Spec.-20 Min Scan / Soil , 500 mL Bottle	08MAY00 1500	NORM	U	60	STD	Ensure 1 pCi/g for Am-241

Pay Item	Description	Parameter Code	Anal Cd	Fill Cd	Prior Lvl	Anal Lvl	Comments
11_04	Gamma Spec.-20 Min Scan / Soil , 500 mL Bottle	08MAY00 1500	NORM	U	60	STD	Ensure 1 pCi/g for Am-241

Pay Item	Description	Parameter Code	Anal Cd	Fill Cd	Prior Lvl	Anal Lvl	Comments
11_04	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle		NORM	U	60	STD	Ensure 1 pCi/g for Am-241

Pay Item	Description	Parameter Code	Anal Cd	Fill Cd	Prior Lvl	Anal Lvl	Comments
11_04	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle		NORM	U	60	STD	Ensure 1 pCi/g for Am-241

Pay Item	Description	Parameter Code	Anal Cd	Fill Cd	Prior Lvl	Anal Lvl	Comments
11_04	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle		NORM	U	60	STD	Ensure 1 pCi/g for Am-241

Pay Item	Description	Parameter Code	Anal Cd	Fill Cd	Prior Lvl	Anal Lvl	Comments
11_04	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle		NORM	U	60	STD	Ensure 1 pCi/g for Am-241

RINSE

NO SAMPLE

NO SAMPLE

Requested Analysis:

Site ID	Station ID	Sample ID	Samp Type	Matrix Code	Collection Start Date	Collection End Date	Start Time	End Time
52	DBLE TRACKS RADS CAU4860012		GRAB	SO				
	Pay Item	Description	Parameter Code	Anal Cd	Fill Cd	Prior Lvl	Anal Lvl	Comments
	11_04	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle	NORM U	60	STD	Ensure 1 pCi/g for Am-241		NO SAMPLE
2	DBLE TRACKS RADS CAU4860013		GRAB	SO				
	Pay Item	Description	Parameter Code	Anal Cd	Fill Cd	Prior Lvl	Anal Lvl	Comments
	11_04	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle	NORM U	60	STD	Ensure 1 pCi/g for Am-241		NO SAMPLE
52	DBLE TRACKS RADS CAU4860014		GRAB	SO				
	Pay Item	Description	Parameter Code	Anal Cd	Fill Cd	Prior Lvl	Anal Lvl	Comments
	11_04	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle	NORM U	60	STD	Ensure 1 pCi/g for Am-241		NO SAMPLE

Containers Included on C.O.C.:

Sample ID	Container ID	Preservative	Filter		Container Type	Comments
			Code	pH		
CAU4860001	CAU486000101	NONE			NALGENE BOTTLE 500 ML	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle
CAU4860002	CAU486000201	NONE			NALGENE BOTTLE 500 ML	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle
CAU4860003	CAU486000301	NONE			NALGENE BOTTLE 500 ML	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle
CAU4860004	CAU486000401	NONE			NALGENE BOTTLE 500 ML	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle
CAU4860005	CAU486000501	NONE			NALGENE BOTTLE 500 ML	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle
CAU4860006	CAU486000601	NONE			NALGENE BOTTLE 500 ML	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle
CAU4860007	CAU486000701	NONE			NALGENE BOTTLE 500 ML	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle
CAU4860008	CAU486000801	NONE			NALGENE BOTTLE 500 ML	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle
CAU4860009	CAU486000901	NONE			NALGENE BOTTLE 500 ML	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle
CAU4860010	CAU486001001	NONE			NALGENE BOTTLE 500 ML	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle
CAU4860011	CAU486001101	NONE			NALGENE BOTTLE 500 ML	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle
CAU4860012	CAU486001201	NONE			NALGENE BOTTLE 500 ML	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle
CAU4860013	CAU486001301	NONE			NALGENE BOTTLE 500 ML	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle
CAU4860014	CAU486001401	NONE			NALGENE BOTTLE 500 ML	Gamma Spec.-20 Min Scan / Soil, 500 mL Bottle

2 No SAMPLE

Transfer Information:

Relinquished By	Received By	Transfer Date/Time	Reason	Shipper	Airbill No.	Traffic Report No.
<i>Donald Cox</i>	<i>CA Castaneda</i>	<i>5/4/00 @ 0739</i>				

Comments:

Potential Contamination Yes No

Radiological

Chemical

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Bechtel Nevada

Interoffice Memorandum

To: W. F. Johnson

Date: June 6, 2000

From: L. W. Hatcher
Analytical Services Laboratory, 295-7109

No.: 2154-LH-00-0448a

Subject: **DATA REPORT FOR SAMPLE DELIVERY GROUP (SDG) D321-AMENDED**
Project No. 04001

Analytical Services Laboratory's (ASL) data results for the gamma spectroscopy analyses for the eight soil samples and one water sample submitted to the laboratory on May 16, 2000 are included with a copy of this memorandum to J. L. Smith. The service statement summarizing the costs and work performed by the Analytical Services Laboratory is also included.

A Bechtel Environmental Integrated Data Management System (BEIDMS) deliverable was also requested for this sample set. The BEIDMS electronic data file was loaded on June 1, 2000 in BEIDMS under document identifier "CAU 486 DTRSA-1".

Please direct any questions you may have to your Client Service Representative, Ted Redding, at 295-7220.

J. Hutchinson For L. Hatcher
L. W. Hatcher

LWH:mcr
Subject Code: ENV3

cc: Correspondence Control, NLV008
S.M. Parsons-DePry (results enc.), NTS306
D. M. Van Etten NLV082
ASL D321, (results enc.) NTS273

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APPENDIX D
FIELD NOTES

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0830 DEPART FOR TTR

1100 - TTR, LUNCH

1200 - SECURITY OFFICE, M/CATHY RE SENSITIVE EQUIPMENT PASS

- 5
- OVER TO RADIO SHOP M/KEN MOLKE, PICK UP RADIOS (3)
 - BACK TO MAIN GATE, PICK UP SAT. TELEPHONE
 - BACK TO OFFICE.

1330 - FORM UP GROUP w/HEAVY EQUIPMENT, HEAD OUT TO DOUBLE TRACKS

1415 - ARRIVE DOUBLE TRACKS

1413 - UNLOAD EQUIPMENT.

1500 - EOD ARRIVES, STAFF SGT WATERS & SR AIRMAN RAINE. VERIFY TRAINING RECORDS. EOD BEGINS SWEEP OF RADSAFE AREA.

5 1525 - EOD REPORTS METALLIC SIGNATURE APPROX 30 METERS X 5 METERS CORRESPONDING WITH CENTER OF BURIAL PIT ("TOO BIG TO BE A BOMB")

1530 - EOD DEPARTS.


1600 - DEPART DOUBLE TRACKS.

1640 - ARRIVE BN OFFICE.

- 20
- CONTACT JERRY BONN - UPDATE TODAY'S ACTIVITIES
 - PREP FOR TOMORROW, PROJECT DOCUMENTATION

1745 - SECURE OFFICE.

25

SIGNATURE 		DATE 01 MAY 00	
DISCLOSED TO AND UNDERSTOOD BY	DATE	WITNESS	DATE

0630 - FORM UP AT BN OFFICE, CLEAR, CALM, $\pm 60^{\circ}F$

0700 - TAILGATE SAFETY BRIEFING, PROJECT DOCUMENTATION

- REVIEW TODAY'S ACTIVITIES, GAS-UP, PREP FOR FIELD, ETC.

- LOGISTICS; FUEL FOR EQUIPMENT, PORTABLE TOILETS

5 - WATER TRUCK PTO, PROBLEM - CONSTRUCTION TO HANDLE

0800 - FORMED UP MAIN GROUP, DEPART FOR DTRSA, ACCESS GATE'S

0900 - ARRIVE DTRSA, SET-UP, PREP EQUIPMENT, SITE WALK.

- DISCUSS EXCAVATION TO START, ORIENT ON ORIGINAL BURIAL PIT

- PAINT SURFACE, & PHOTO'S; START WITH #62, 61, 60 OF

10 BURIAL PIT LOOKING NORTH & WEST, 3 BORINGS, STAKES, ETC.

0925 - ATTEMPTED TO CALL J. BONN USING SATELLITE PHONE - UPDATE.

0940 - REVIEW RWP, SIGNATURES, OPERATOR - JIM FISHER & HP - CRAIG LYONS SUIT-UP,

DEN PPE STEVE RIEDHAUSER, RADIATION SCIENTIST (RSL) JOINS THE ENTRY TEAM.

15 1000 - ENTRY TEAM INTO EXCLUSION ZONE (EZ), BACKHOE INTO EZ

1010 - BEGIN EXCAVATION OF BURIAL PIT. PHOTO'S #59, 58

- USING FIDLER'S IN EXCAVATION, PHOTO #57, STOCK PILING CLEAN-FILL AT SOUTH END OF EXCAVATION.

1050 - EXCAVATION ABOUT 2.5 FT. DEEP BEGINNING TO SEE METAL AND PLASTIC

20 SCRAP, NO ELEVATED READINGS ON FIDLER YET, CONTINUE TO STOCKPILE CLEAN FILL AT SOUTH END OF EXCAVATION.

1110 - AT APPROXIMATELY 3.0 FT BGS. WIRE, WOOD & PLASTIC OBSERVED

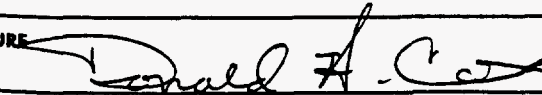
NO ELEVATED RADIOLOGICAL READINGS OBSERVED, CONTINUE STOCKPILING OF CLEAN FILL, PHOTO #56 LOOKING SOUTH.

25 1200 - LUNCH

→ "POWER BANK"

1230 - RE-ARRANGING GENERATOR AND HOOK-UP/FUSE PANEL IN ORDER TO FACILITATE SPOTTING RAD COUNTING/LUNCH TRAILER.

- C. LYONS, B. TEMPLETON AND I MEET TO DISCUSS OPERATION

SIGNATURE 		DATE 02 MAY 00
DISCLOSED TO AND UNDERSTOOD BY	DATE	WITNESS
		DATE

MEETING TO DISCUSS OPERATIONS, CONTINUED - WE WILL CLEAN FLOOR OF EXCAVATION, AND MOVE CLEAN-FILL TO NE CORNER OF OF EZ, AND THEN POTHOLE THE EXPECTED DEBRIS LOCATION. FISHER BACK INTO EZ

1300 - BEGIN CLEANING EXCAVATION AND MOVING CLEAN-FILL.

5 1359 - C. LYONS AND D. COOPER SUIT-UP & ENTER EZ.

1412 - START FIRST POTHOLE

- STEVE RIEDHAUSER DONS PPE & ENTERS EZ

1430 - POTHOLE & EXCAVATE INTO DEBRIS AT MIDDLE BOREHOLE; "NB3" LOCATION. WE ARE OBVIOUSLY IN THE DEBRIS-LAYER PORTION OF THE BURIAL PIT EXCAVATION. SEE PHOTO #55.

OVER ALL EXCAVATION IS APPROXIMATELY 20 FT X 50 FT

"FLOOR OF EXCAVATION IS APPROXIMATELY 20 FT X 30 FT X 3.5 FT

"POTHOLE" IS APPROXIMATELY 6.5-7 FT DEEP.

NOTE: ^{NONE DNE} SLIGHT ELEVATION IN RAD (± 200 DPM) IN ONE SMALL AREA OF DEBRIS, AND THAT IS ALL CONSIDERING THE AMOUNT OF TRASH EXPOSED.

1445 - CONTACTED J. BONN RE CONFIRMATION OF PLAN.

- CONTINUE WITH WORK PLAN.

1500 - MOVED THE FIRST B-25 INTO THE EZ, FILLED THE B-25 WITH SOIL AND DEBRIS.

1515 - INSTALLED THE HPGE* DETECTOR OVER B-25, FIRST 1 FT LIFT -

NO INDICATIONS OF ACTIVITY, FILLED B-25 WITH SECOND LIFT,

" " " " " " " " THIRD LIFT,

" " " " ON ANY OF THE THREE INSTRUMENTS

(ELECTRA, FIDLER, OR HPGE)

1530 - ALL DEBRIS AT THIS POINT IS TRASH, NO HOT-LINE MATERIAL

1545 - MOVED BACKHOE TO EAST SIDE OF TRENCH, EXTEND WIDTH OF

* HIGH PURITY GERMANIUM

SIGNATURE

Donald A. Cox

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

1545 - CONTINUED. EXTENDING WIDTH OF TRENCH IN THE AREA OF THE "ENT 1" TRENCH (TRENCH CONTAINING "RADIOLOGICALLY

CONTAMINATED DEBRIS"). ONE BAG HAS BEEN FOUND WITH RAD CON ^{TAPE *} ~~STICKERS~~ ATTACHED, BUT IT CONSISTS OF TRASH (X)

5 NOT HOT-LINE WASTE, AND THERE IS NO ELEVATED RADIOLOGICAL ACTIVITY. (X) MOSTLY TAPE, PAPER, FOOD PACKAGING, ETC

1600 - MOVED BACKHOE TO SOUTH SIDE OF EXCAVATION, EXTEND LENGTH ^{EXCAVATION} OF TO SOUTH.

1615 - MOVED BACKHOE TO ^{DR} SOUTH NORTH SIDE OF EXCAVATION, EXTEND LENGTH

10 OF EXCAVATION TO NORTH. ~~DR~~ 02 MAY 00

CUT EAST WEST TRENCH ACROSS NORTH END OF EXCAVATION.

1630 - THREE BAGS OF TRASH OBSERVED IN EXCAVATION.

- SECURE EXCAVATION FOR THE DAY.

- FRISK CREW OUT OF EZ, BREAKDOWN LOCATION,

15 LOCK UP EQUIPMENT IN TRAILER.

1700 - SECURE SITE & DEPART


1710 - LEAVE RANGE 71N

~~DR~~ 1550 1750 - BACK TO OFFICE, PROJECT DOCUMENTATION

CONTAMINATED MATERIAL

SCIENTIFIC BINDERY PRODUCTIONS CHICAGO 60605 Made in USA

Work continued to Page _____

SIGNATURE 		DATE 02 MAY 00	
DISCLOSED TO AND UNDERSTOOD BY	DATE	WITNESS	DATE

0630 - PICKUP LUNCHES, TO OFFICE, PROJECT DOCUMENTATION

0645 - TELECON W/ J. BONN - OPERATIONS.

0700 - TAILGATE SAFETY BRIEFING, CALLS TO NELLIS RANGE

COORDINATION, LOGISTICS

⁵ 0730 - FORM-UP GROUP & HEAD FOR DOUBLE TRACKS.

0805 - ON SITE, SET-UP, CLEAR, LT BREEZE, $\pm 70^{\circ}F$

- MET W/ C. LYONS WE DECIDED TO: 1. SET ONE B-25 OFF TO THE SIDE FOR ANYTHING QUICKLY RAD MATERIAL OR INDICATING ELEVATED RAD. 2. IN ORDER TO CONSERVE THE B-25'S WE WILL ~~ATTEMPTED~~ ^{THE} ATTEMPT TO SOMEWHAT SEPERATE THE MAJORITY OF THE CLEAN SOIL FROM THE OTHER DEBRIS.

0845 - TELECON FROM RANGE SCHEDULING RE SCHEDULE, TODAY THRU FRIDAY. TOMORROW WE WILL BE VISITED BY A HELICOPTER OPERATING 100 FT AGL. I TOLD RANGE SCHEDULING WE DID NOT HAVE A PROBLEM WITH THIS OPERATION.

- STAGING B-25S, PHOTOS #S 51, 52, & 53.


0930 - WATER TRUCK ON SITE - WET DOWN EXCAVATION & IMMEDIATE SURROUNDING AREA.

0940 - BEGIN LOADING B-25S, SEGMENTING MATERIAL, PLASTIC, WIRE, ETC., FROM SOIL.

- ATTEMPTED TO CONTACT J. BONN TO VERIFY THE HP'S ^{DAC} ~~CHANGE~~ ^{INTERPRETATION} TO THE WORK INSTRUCTIONS, - NEGATIVE CONTACT.

1030 - ONE BAG SEPERATED FROM ALL THE OTHER DEBRIS THAT IS MARKED WITH CONTAMINATION TAPE, HP MEASURES ACTIVITY AT 4000 COUNTS/SEC, ON THE FIDLER. 9 PHOTOS (41-50 \pm) OF OPERATION AT THIS POINT, EXCAVATING, DUST CONTROL, TRASH SEPARATION, ETC.

1115 - FOUND ONE BAG MEASURING 500 COUNTS/SEC, AND TWO BLACK TOTES MEASURING, 600 & 700 COUNTS/SEC RESPECTIVELY.

SIGNATURE 		DATE 03 MAY. 00	
DISCLOSED TO AND UNDERSTOOD BY	DATE	WITNESS	DATE

1200 - LUNCH

1230 - OPERATOR DONS PPE - FRISK OUT FORK LIFT IN PREPARATION FOR SITE SUPPORT FACILITY RE-ARRANGEMENT, B. TEMPLETON PRESENTLY IN ROUTE TO SITE WITH ELECTRICIAN.

5 1250 - TEMPLETON & ELECTRICIAN ON SITE, MOVE WATER BUFFALO & GENERATOR, ELECTRICIAN HOOKING UP GENERATOR.

1315 - RESUME EXCAVATION/SEPERATION PROCESS

1335 - ONE BAG COLLECTED WITH RADCON TAPE, CONTAINING MOSTLY TAPE - NO ELEVATED ACTIVITY APPARENT.

10 1340 - ONE LARGE BAG OF ANTI-CS AND TOTES COLLECTED AND ADDED TO "RAD CONTAMINATED" B-25, NO ELEVATED ACTIVITY APPARENT.

1350 - TWO B-25S ARE NOW FULL, CHANGE-OUT WITH EMPTY BOXS, - THE TWO FULL B-25S MOVED TO THE HPGR TESTING AREA.

1414 - RESUME EXCAVATION/SEPERATION PROCESS.

15 1500 - A/A, PHOTO'S # 38, 39, 40, 41.

1515 - ONE BAG OF GLOVES RECOVERED, NO ELEVATED ACTIVITY APPARENT.

- ONE BAG OF LATEX GLOVES RECOVERED, 370 COUNTS/SEC INDICATED.

1615 - CONTINUE EXCAVATION/SEPERATION PROCESS.

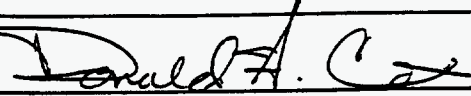
- CLEAN-UP EXCAVATION, SECURE LOCATION.

20 1630 - DEPART RANGE 71 N.

1700 - ARRIVE BNOFFICE, AREA 3.

- PROJECT DOCUMENTATION.

25

SIGNATURE 		DATE 03 MAR. 00	
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0630 - PICK UP LUNCHES, TO OFFICE, PROJECT DOCUMENTATION.

0700 - TAILGATE SAFETY MEETING. FORM-UP GROUP -

0730 - DEPART FOR DOUBLE TRACKS.

0810 - ARRIVE DOUBLE TRACK SITE. PREP TO BEGIN WORK.

50830 - BEGIN EXCAVATION / SEPERATION PROCEDURE

0850 - ONE BAG (PLASTIC) CONTAINING RAD TAPE, 700 COUNTS / SEC

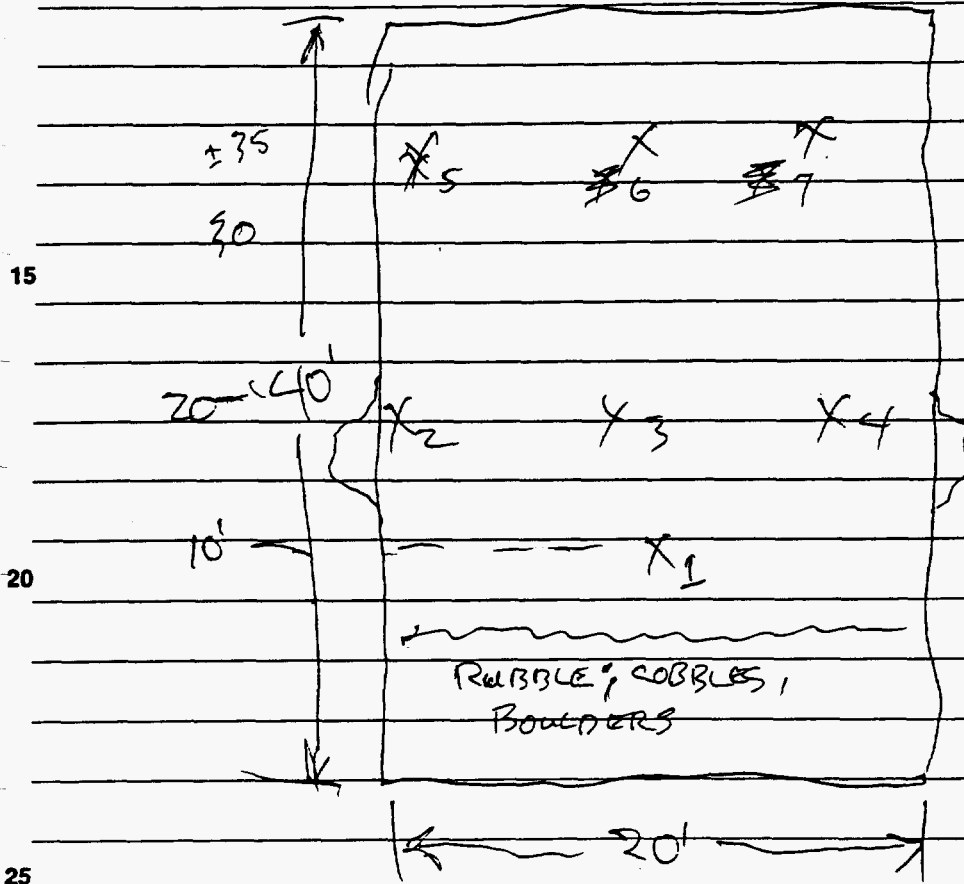
0905 - CONTINUE EXCAVATION / SEPERATION PROCEDURE, PHOTO'S # 35, 36, 37, 38...

0950 - ONE BAG (PLASTIC) CONTAINING RAD TRASH* 600 COUNTS / SEC (FIDLER).

* RUBBER, PPE, WOOD, ETC.

10

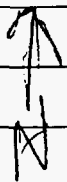
SKETCH #1



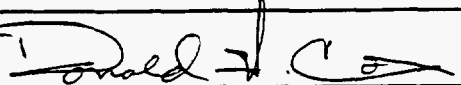
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CONTINUED ON NEXT PAGE

SIGNATURE 		DATE 04 MAY 00	
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TITLE CAU 486 DOUBLE TRACKS RADSAFE
Work continued from Page 64 04 MAY 00

PROJECT NO.
BOOK NO. 3

65

1000 - DON PPE, ENTER EZ, LAYOUT VERIFICATION SAMPLES, MEASURE
EXCAVATION, SEE SKETCH ON PAGE 64

- CLEAN UP FLOOR OF EXCAVATION

1100 - DOFF PPE, EVERYONE OUT OF EZ, BACKHOE OPERATOR PUTTING
BERM AROUND EXCAVATION FOR THE WEEKEND.

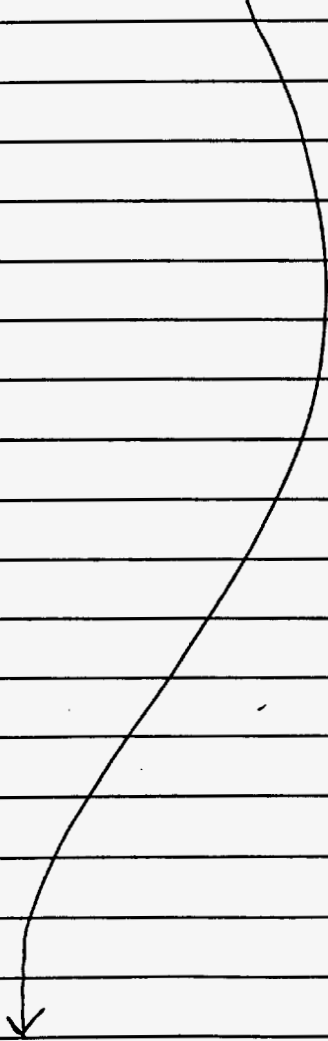
1200 - LUNCH / SECURE LOCATION

- HEAD BACK TO BN-OFFICE.

1330 - BN OFFICE

- PROJECT DOCUMENTATION, TELECONS, LOGISTICS.

1430 - SECURE AND DEPART LOCATION.



SIGNATURE <i>Donald A. Cox</i>		DATE 04 MAY 00	
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0830 - ARRIVE TTR, PICK UP CAMERA PERMIT, STOPPED BY THE BASE

COMMANDER'S OFFICE, THE COL. WAS NOT IN.

- TO BN OFFICE, TELECON WITH J. BONN; 1. DISCUSSION RE EXTENDING THE EXCAVATION, 2. LOGISTICS.

5 - VARIOUS TELECONS; BLACKTACK-RANGE SCHEDULING, LASERS WORKING IN RANGE 71 SOUTH, THIS AFTERNOON.

1050 - TAILGATE SAFETY MEETING, REVIEW TODAY'S TASKS, ^{DHC}HABERMAS HABERMAS E-MAIL.

1130 - LUNCH

1230 - FORM-UP & HEAD FOR DOUBLE TRACKS.

10 - WAITING ON GATE ACCESS (CACTUS SPRING GATE) (AFTER BEING CHIDED LAST WEEK BY CACTUS, FOR NOT GIVING THEM ENOUGH TIME, I CALLED TODAY FROM THE BN OFFICE PARKING LOT, AND WE STILL HAD TO WAIT FOR THEM AT THE GATE)

1330 - ARRIVE AT DOUBLE TRACKS SITE, PREP, DON PPE, CHECK EQUIPMENT

15 - BEGIN EXTENDING NORTH AND SOUTH BOUNDARY OF THE EXCAVATION.

1530 - SUIT-UP, INTO EZ, EXCAVATE AND COLLECT SAMPLES. SEE ^{SKETCH} ~~DIAGRAM~~ # 2 ^{& PHOTO}

1535 - SAMPLE #1, 1540 - SAMPLE #2, 1545 - SAMPLE #3, 1550 - SAMPLE #4

1555 - SAMPLE #5, 1600 - SAMPLE #6, 1605 - SAMPLE #7, [#]1610 - SAMPLE #8.

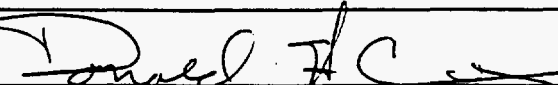
1615 - PUSH IN CORNERS OF EXCAVATION, ALL SAMPLES CHECKED WITH

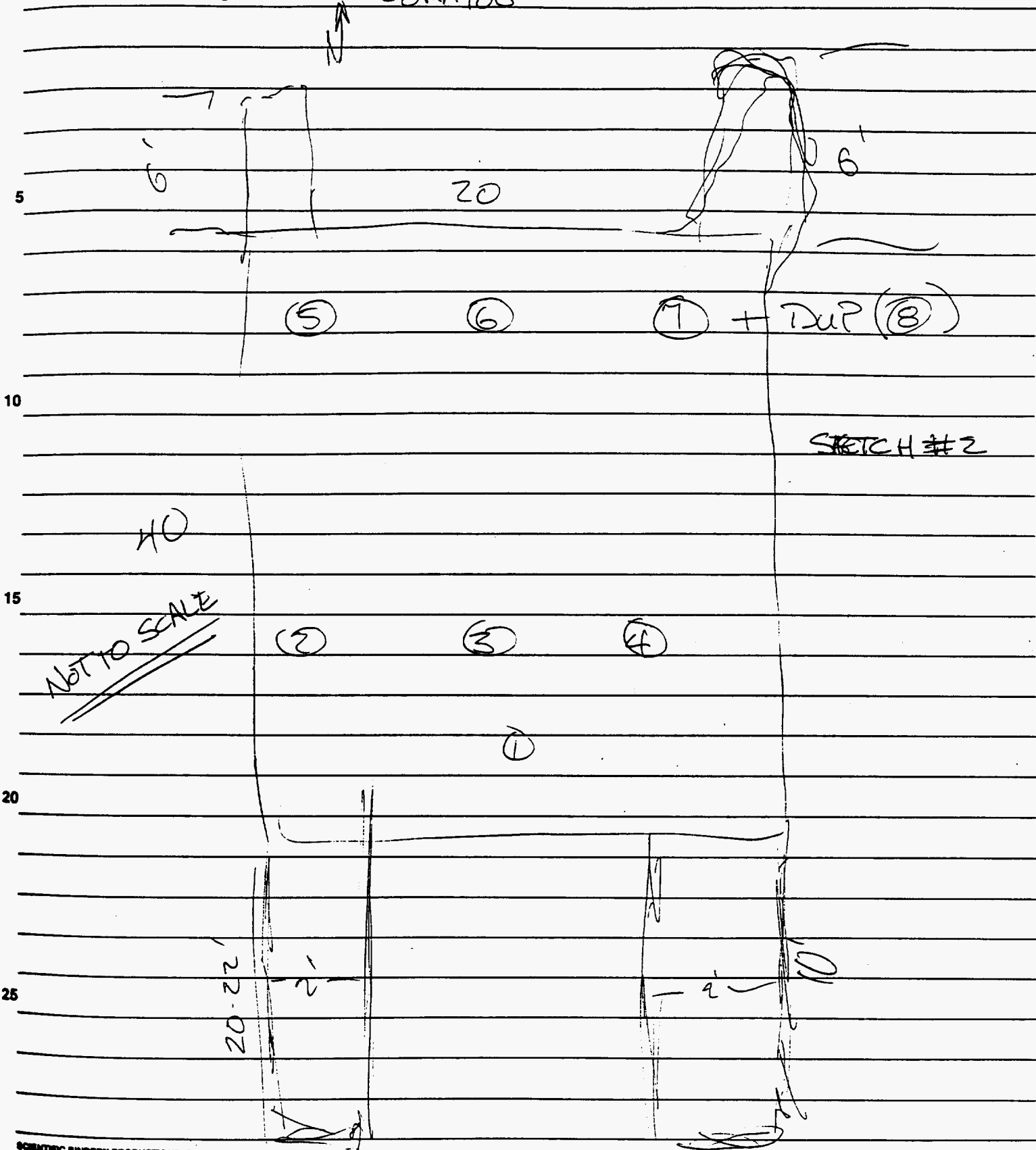
20 ^{DHC}HPGe ^{DETECTOR} ~~DESTOR.~~ ^{DHC}, AND THEN SWIPED BY RCTS.

1650 - EVERYONE OUT OF EZ, SECURE AND DEPART LOCATION.

1720 - BACK TO BN OFFICE, PROTECT DOCUMENTATION

25

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SIGNATURE <i>Donald F. Cox</i>		DATE 08MAY.00	
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0630 - FORM-UP AT BN OFFICE. PROJECT DOCUMENTATION.

0700 - TAILGATE SAFETY MEETING, DISCUSS TODAY'S ACTIVITIES, PREP FOR FIELD;
GAS, LUNCHS, ICE, ETC. HEAD FOR DOUBLE TRACKS. CLEAR GATES.

0815 - ARRIVE DOUBLE TRACKS RADSAFE, HIGH CLOUDS, 65°F, HIGH CLOUDS.

5 - OPERATOR DONS PPE, HEADS INTO EZ, SERVICE EQUIPMENT

0830 - LABORER DONS PPE, INTO EZ TO ASSIST OPERATOR, SEPERATE PLASTIC
FROM SPOILS PILE. OPERATOR BEGINS (CONTINUES) BACKFILLING
EXCAVATION.

0910 - RCT (R.D.) DONS PPE, ACCESS "DECONTAMINATION FACILITY" FOR
10 "STOMP AND TROMP" IN ORDER TO DEPOSIT AREA.

1000 - ESCORTED RSL OFF RANGE 71N.

1020 - BLEW FRONT LEFT TIRE ON BACKHOE, CONTACTED B. TEMPLETON
AT THE OFFICE RE REPAIR.

1130 - FUEL TRUCK AND ELECTRICIAN ON SITE. DISCONNECT TRAILER.

15 1145 - OPERATOR COMES OUT OF EZ FOR LUNCH.

1240 - OPERATOR & LABORER INTO EZ, USE BACKHOE BUCKET TO TRANSFER SOIL
FROM STOCK PILE TO EXCAVATION. FUEL TRUCK & ELECTRICIAN DEPART (ESCORTED)

- BACK HOE TIRE LOGISTICS,

1430 - TEMPLETON, TEAMSTER, NELSON & BROWN ON SITE.

20 - HOOK-UP WATER BUFFALO. VARIOUS TIRE CALLS

1455 - TEMPLETON, TEAMSTER, NELSON & BROWN DEPART

- BEGIN WEIGHING B-ZSS.

1530 - BEGIN FILLING BOXS

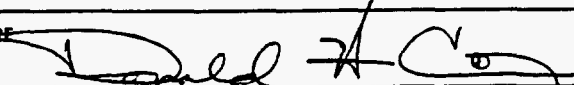
1600 - B-ZSS FILLED WITH SOIL, MOVE TO CONTAMINATED STORAGE AREA FOR

25 SWIPES

- MOVE BACKHOE TO FENCE, SWIPE TIRE FOR REPAIR

1630 - SECURE AND DEPART LOCATION

*"BOOT, SCOOT, AND BOOGIE, BY BROOKS & DUNN" (R.D.)

SIGNATURE 		DATE 09 MAY 00	
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0630 - MET D&D TIRE AT MAIN GATE.

0700 - BACK TO BN OFFICE, LOGISTICS, TAILGATE SAFETY MEETING.

0800 - ARRIVE DOUBLE TRACKS SITE, CLEAR, $\pm 60^{\circ}\text{F}$, BREEZY.

- PREP TO WEIGH B-25S. TIRE REPAIR COMPLETE *

5 0820 - BEGIN WEIGHING, B-25S.

- SET-UP TO ENTER EZ TO BACKFILL EXCAVATION.

0840 - OPERATOR INTO EZ TO BACKFILL EXCAVATION. PHOTOS

- WASTE OPS CLOSING, SECURING B-25S FOR TRANSPORTATION.

- LABORERS REMOVING FENCE FROM OLD DECONTAMINATION FACILITY.

10 0940 - COMPLETED BACKFILLING EXCAVATION. SURVEY FOR RELEASE

1010 - WATER DOWN EXCAVATION.

1200 - LUNCH. TELECON w/ RANGE SCHEDULING RE TOMORROWS BOMB DROP

1230 - PREP FOR LOADING B-25S. WIND INCREASING - BLOWING DUST

1300 - TRUCKS ARRIVE, LOAD B-25S.

15 1415 - LOAD GENERATOR

1435 - FORK LIFT AND TRUCK (TRACTOR WITH FLATBED) TO LOADING RAMP ABOUT
4 MI EAST OF DOUBLE TRACKS SITE.

1500 - LOAD UP RCT/SUPPLY/TESTING EQUIPMENT TRAILER

1600 - I DEPARTED SITE ESCORTING 3 TRUCKS AND 4 OTHER WORK VEHICLES

20 LEAVING BLL ^{DIC} ~~TO~~ AND OPERATOR + A LABORER & HEALTH & SAFETY +
PULL POSTS VISIBILITY DOWN TO ABOUT 2 MI, 40-50 MPH WINDS.

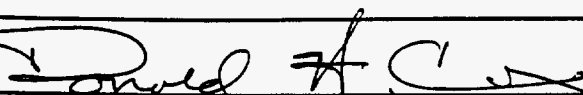
1630 - BN OFFICE

1700 - TEMPLETON & CREW BACK TO OFFICE. PROJECT DOCUMENTATION

1745 - SECURE & DEPART OFFICE.

25

* WE WERE DIRECTED TO USE D&D TIRE FROM TONOPAH BY SUEZANNE, AREA 6 EQUIP.

SIGNATURE 		DATE 10 MAY 00	
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APPENDIX E

COMMENT RESPONSE DOCUMENTATION

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1. Document Title/Number: Draft Closure Report for Corrective Action Unit 486: Double Tracks RADSAFE Area Nellis Air Force Range, Nevada.
 2. Document Date: August 2000
 3. Revision Number: 0
 4. Originator/Organization: BN
 5. Date Comments Due:
 6. Reviewer/Organization: NDEP

7. Comment Number/ Location	8. Type	9. Comment	10. Comment Response	14. Accept
1. General	M	<p><i>"...it is unclear as to whether the minimum detectable activity of Am-241 (1 pCi/g) was obtained in the gamma spectroscopy analysis of the verification samples. NDEP requests the Am-241 results for the verification samples also be reported in addition to the K-40, Ra-226, Th-228, and Th-232 results".</i></p>	<p>The Am-241 results have been incorporated into the Final Closure Report in Verification Samples Analytical Reports (Appendix C).</p>	Y

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